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SPECIAL ARTICLE.

AN HISTORICAL SKETCH OF THE JEFFERSON MEDICAL COLLEGE OF PHILADELPHIA.

THE restless, fervid energy that impels men to teach has done more to supply our country with colleges than the anxiety of the public to learn. At the end of the first quarter of this century there was in Philadelphia a group of young medical men who felt the passion for imparting knowledge with no outlet for its exercise. The Trustees of the Medical School of the University of Pennsylvania, with that complacency which so often characterizes wealthy and successful individuals and institutions, declined to listen to the suggestion that the classes were overcrowded and that new developments were necessary; and there gradually arose two factions in the city, one claiming that a new medical school would draw more students to Philadelphia and increase the city's prosperity, while giving a chance to the talent outside of the University, and others vehemently protesting against the idea.

There was a nucleus of students in the classes which had been established by George McClellan and Eberle which formed the germ of the enterprise, and when the Legislature had repeatedly refused to grant a charter for the new school, McClellan solved the difficulty by proposing to organize a medical school under the authority of some literary college already chartered by the State. As a result of his efforts the Trustees of Jefferson College of Canonsburg, Pa., decided to open a medical department in Philadelphia, and thus was founded in 1824 the Jefferson Medical College which has since taken rank among the first in the country.

Six chairs were established, and a class of one hundred and seven students registered. But there was neither endowment nor building. The small, but ardent faculty, overcame this obstacle by renting a building which had been erected for a factory and altered into a theater, known as the Prune Street, or Tivoli Theater. Directly opposite was the old Walnut Street Prison, and what is now Washington Square was then the Potter's Field, so that the earliest *bon mot* of the new college was made by Dr. Atlee, a student of Jefferson's second class, who suggested that the young physician's struggles were typified by the debtors' prison in front and the paupers' burial ground at the side.

The first course of lectures opened in November, 1825. From the start the surgical clinic was a brilliant affair, and the material, as supplied by McClellan's practice, was a great attraction.

The first Faculty of the Jefferson Medical College consisted of men who, though able and full of ambition, were very young and who still had their reputations to make. Its members were enthusiastic, energetic, brave and honorable, with definite ideas, and not afraid to fight. It took a good deal of courage to cast one's fortune with this new school; the dominant sentiment was strongly against it and it involved a measure of professional ostracism.

The basic principle of the school was that it should be practical, that it should bring the student in contact with disease, and that it should endeavor to make him a practical physician and surgeon.

Dr. George McClellan, the real founder and the dominating influence in the school, was a

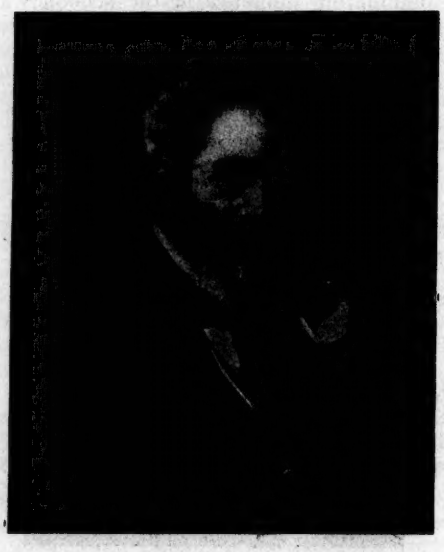
Geo McClellan

marked man even from boyhood; he was fierce, energetic, absolutely fearless, quick in conceiving, and rapid in understanding, always sure of his conclusions, very emphatic in his speech, and enthusiastic in anything he undertook. Of marvelous memory, he possessed a piercing eye, and a hand of iron steadiness. Graduating from Yale College in 1815, he studied medicine at the University of Pennsylvania, from which he graduated in 1819. Surgery was the preferred field of his early professional life and in 1823 he removed the entire lower jaw, the operation requiring but four minutes. In the same year he put forth his well-known views as to the arrest of hemorrhage in operations, and from these he never departed. He

was entirely opposed to the preliminary ligation of blood-vessels, and advocated the forcible tearing out of tumors, in order to lacerate the blood-vessels and thus prevent severe hemorrhage.

McClellan was the soul and spirit of the new enterprise. At the time the first class was ready to graduate, the Legislature had not as yet authorized the new college to issue diplomas, and the right to grant degrees was fought out in the courts of Harrisburg in the spring of 1826. Dr. Washington Atlee has recorded an anecdote of McClellan in this connection.

Dr. Atlee lived at Lancaster. He and several students were sitting in John L. Atlee's office in that town when a knock came at the door and an excited man rushed in. Dr. Atlee introduced him as Dr. McClellan of Philadelphia. Dr. McClellan told them he had driven the sixty miles from Philadelphia since morning, that he was obliged



Robley Dunglison.

to be in Harrisburg that night, that his horse was fagged out and could travel no further. Borrowing a fresh animal from Atlee he started at once for Harrisburg, making the entire one hundred and six miles within twenty-four hours. He obtained the charter next morning, arrived in Lancaster the same evening, changed horses again, and started for Philadelphia. When a few miles out from Lancaster the wagon upset. After much shouting, a farmer appeared with a lantern and began to ask how the accident had happened. McClellan shouted furiously, "Come, my friend, this will not do. Let us put our shoulders to the wheel and leave explanations until another time." The wagon was righted, and the next day the charter of Jefferson Medical College was in Philadelphia and the students were able to graduate.

The second commencement of Jefferson was held in 1827 when there were thirty-four graduates; the third was held in 1828, twenty-five men graduating. Among the latter was Samuel David Gross, who was destined to become the greatest surgical authority that this country has produced. After the third class had graduated it was determined that the school must be removed to better quarters. Dr. Ely, a distinguished Presbyterian divine, who was Secretary of the Board of Trustees, offered to fit up a building at his own expense and to rent it to the College for one thousand dollars a year. The offer was accepted, a building was selected on Tenth Street above Walnut, and in the Summer of 1828 the College was removed to its new quarters. In the first class graduated from the new building in 1829 was Washington L. Atlee—the Atlee the world came to know later as the celebrated authority on abdominal surgery, and author of "The Struggles and Trials of Ovariotomy." J. Marion Sims, known to all men as the founder of the science of gynecology, the inventor of the duckbill speculum, and the deviser of the operation for vesicovaginal fistula, graduated in the class of 1835.

The College grew apace. Every man upon the increasing staff was well known as a teacher and writer, the school was obliged to enlarge its quarters and was able, at last, in 1838, to secure an independent charter from the State, by which it became "The Jefferson Medical College of Philadelphia."

This prosperity was not, however, what had been predicted for the College, for the fame that characterized the early professors seemed to be foreign to the development of a brotherly spirit of getting on together. It was doubtless the eager restlessness of a group of energetic men working their way to distinction that caused friction and change. In seventeen years there had been eight different men in the chair of obstetrics, and so many dissensions had arisen and the students had so diminished in numbers that it was predicted that the College could never outlive its difficulties. Finally, in 1841, after a general upheaval that left every chair vacant, the Faculty was reorganized with a set of brilliant men whose relations toward the College did not change for fifteen years. As a result the school prospered to a degree surpassing any other medical college of the time.

In those days, which were such an advance in the medical teaching of the past, a two-year course of lectures, extending through the day and infringing upon the night, constituted the course of medical study. Badly-ventilated rooms, poorly-lighted lecture halls, crowded quarters, and practically no laboratory conveniences were the rule in Jefferson as in all colleges. The famous surgical clinic, which dated back to the days when Dr. McClellan brought his charity patients to the new college, had no adequate accommodations,

and patients who had undergone serious operations had to be sent to their homes in carriages.

Among the advance steps of improvement that took place before the middle of the century was the establishing of a small clinical hospital with fifteen beds in two rooms near the College. The professor of surgery began in 1835 to teach diseases of the eye in the dispensary, which was probably the first introduction of teaching that

JOHN KEARSLEY MITCHELL.

subject as a specialty in any American college. Oral examinations had been abolished in favor of written ones, to save time and secure the best results from panic-stricken students and to serve as records of the college work; and a spring course had been established to "raise the standard of education."

For a period of fifteen years, dating from 1841, the teachers of Jefferson College formed an harmonious and unbroken Faculty that was regarded as the ablest body of medical instructors in the United States. Every one of its members was a noted teacher and author, and a public-spirited, progressive man.

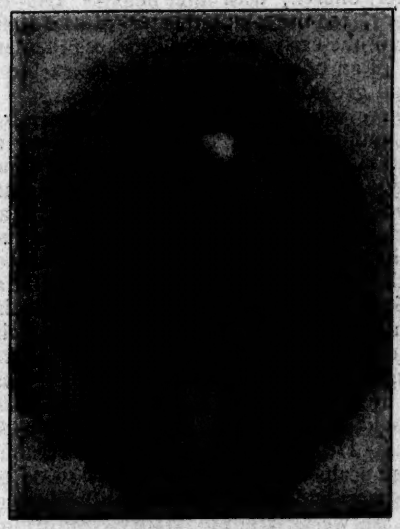
Among the most celebrated names were those of Dunglison, Mitchell, Meigs, Mütter, Pancoast and Gross; names that no student of the Jefferson can hear spoken without a feeling of reverence.

Robley Dunglison was an Englishman, a practitioner, and the editor of a medical journal in London, before he was elected to the chair of Institutes of Medicine and Medical Jurisprudence at the Jefferson. He was a widely-read and very learned man, and wrote a number of extremely successful books, among which his "Medical Dictionary" and "History of Medicine" are still standard works.

John Kearsley Mitchell, the Professor of Theory and Practice of Medicine, was a successful practitioner, a literary light, a poet, a scientific chemist, an excellent teacher, an impressive orator, a medical philosopher—in short, an extraordinarily-gifted man. He first suggested the nervous origin of rheumatism, indicated the value of rest in spinal troubles, and, in 1849, wrote a famous essay on the "Cryptogamous Origin of Malarious and Epidemic Fevers," in which he clearly anticipated modern science in the view that fungi cause febrile maladies, and there is little doubt that he saw the plasmodium of malaria. His son, Dr. S. Weir Mitchell, the distinguished *literateur*, physician and scientist, graduated from Jefferson in 1850.

Charles D. Meigs, the Professor of Obstetrics, was a famous lecturer, having at his command wit and learning, combined with dramatic power and pathos. He was a man of lovable eccentricity, with a genius for description and anecdote. It was he who gave the name of "milk-men" to those writers who believed that puerperal insanity, abscess in the breast, and other disorders of confinement were due to absorption of the milk.

Mütter received part of his medical education on the Continent, and through him orthopedic surgery and the foreign methods of plastic surgery were introduced into the United States. It was in his clinic in 1846 that ether was used as an anesthetic for the first time in Philadelphia, and



JOSEPH PANCOAST.

it was he who introduced the practice of "quizzing" into the College.

Joseph Pancoast who held the chair of Anatomy and divided the surgical clinics with Mütter, was universally regarded as the greatest operative surgeon in this country. In fact, his reputation was international, as was shown by the fact that the daughter of the Lord Chancellor of England was sent to him to have a difficult operation performed. Pancoast executed the most formidable operations with a dash and speed and certainty simply amazing. He devised numerous operations which still bear his name. He invented the abdominal

tourniquet, the tongue-and-groove suture, a method for making a new nose, a method for curing exstrophy of the bladder, and a method of removing the nerve trunks from the face for the cure of neuralgia. What we know as the bloodless method of Esmarch, was really devised by Pancoast, and was practised for years in the Jefferson Clinic.

John J. Black, in his reminiscences of forty years ago, describes Pancoast as he appeared to him in his youth. "He was a large thick-set man with a kindly manner. His hand, that organ which did so much for him and for humanity, was large, heavy and thick, with immense, blunt fingers; any other than a hand you would look upon as facile and dextrous almost beyond belief. He could do a major operation, as a hip-joint, and pass with graceful ease to a case of cataract. It was wonderful how he could use those great blunt fingers. They could turn and twist and reach anywhere. His audience was always *en rapport* with the man and his patients looked upon him as next to divine."

The great operations at clinics in these days were those for stone in the bladder, the tying of the larger blood-vessels, amputation at the hip-joint, removal of tumors, etc. One can almost transfer oneself, with the help of Dr. Black's memory, to the amphitheater of the Jefferson Clinic in the early sixties and witness the dramatic effect of an operation by Dr. Pancoast for sarcomatous growth of the thigh.

"There was a large audience present of physicians and students. Dr. Gross assisted at the operation. Both he and Pancoast had something to say. Pancoast's address was quite pathetic; he spoke of the gravity of the operation and its uncertain ending for the patient, said she had seen her clergyman, had had the last rites of her church, and trusted herself to her surgeon and to her God. After the ether had been administered, which was done after the preliminary examination and explanation of the case had been gone through with, the abdominal tourniquet was applied by Pancoast himself. He spoke of its uses, and said, 'Gentlemen, *there will be no hemorrhage.*' He then took his place with nothing but a large scalpel in his hand. Gross stood by him and Maury had charge of the limb. 'Now, gentlemen, are we all ready? Maury, you are a good fellow. I depend on you; when I say lift, you lift; when I say lower, you lower; when I say right, move the limb to the right; and left, move to the left.' He commenced by making first an anterior skin-flap, then a similar posterior one, then a circular incision of the muscles, completing the operation by dislodging the head of the femur, without once stopping or laying down the knife. There was no bleeding, and the securing of the vessels and the dressings completed the brilliant operation. The patient made a good and rapid recovery."

In 1866-67 the clinical opportunities were much enlarged by the establishment of a daily clinic in charge of Dr. J. M. Da Costa, and a "summer course" was started. The crowding of the clinic and the great number of surgical operations performed in cramped quarters, as well as the renewed enthusiasm of the students after the war, led finally with the help of the Alumni to a State appropriation, followed later by a second, together aggregating two hundred thousand dollars for the purpose of enlarging the college and hospital buildings.

The prosperity of the College kept pace with its accommodations. In 1877 the new hospital was finished, with beds for 125 patients and a fine operating amphitheater that would seat more than 700 students. The new laboratory building was the next step, providing room and equipment for the study of practical chemistry, microscopy, physiology, materia medica, and pharmacy.

At that time the statutes of Pennsylvania, like

those of most American Commonwealths, contained stringent laws against the desecration of cemeteries, and it was almost impossible to legally procure material for the proper study of anatomy. The absolute necessity for dissecting was recognized, however, by every educated person. Through the exertions of the then demonstrator of anatomy at the Jefferson Medical College, a perfected bill was finally passed by the Legislature, under which not only were dissections legalized, but provision was made for the distribution of all unclaimed dead bodies to the various medical colleges in the interests of science. This triumph was accomplished at the expense of much sensational scandal and personal persecution, but the persistent efforts indicated above brought

about the present more enlightened legislation that has broadened all medical study.

In 1885 a maternity department was organized in connection with the hospital. This is complete in every respect and in charge of the Professor of Obstetrics. The advancing standards, a sign of progress in all college life, began in 1882, when the course of two years was successfully increased to three, simultaneously with the organization of a corps of clinical professors to give practical instruction, particularly to the third-year class.

In 1890 the requirements for preliminary examinations were raised, and in 1895 the compulsory four-year course was established, accompanied by many changes in the scheme of study, necessitated by the advance of medical science in its untiring effort to discover all the phenomena of disease by exact laboratory investigations.

About this same time the Trustees determined to change the financial policy of the college by placing the Faculty under salaries, and assuming the entire material administration of the institution. This radical change met with the approval of the Faculty, who submitted to a reduction of their income in order that they might assist the Trustees in their efforts to place this school in the position to which it was entitled. From this action dated the renaissance of Jefferson. Dissensions ceased and the teaching body, unfettered by the responsibilities of non-medical questions, devoted themselves exclusively to their noble avocation.

The Hospital, situated in the heart of Philadelphia, was an outgrowth of the need for clinical facilities, and has been one of the causes of the great success of Jefferson Medical College. It has at its command the services of a small army of leading practitioners of medicine, surgery, and the specialties, and the wealth of clinical material is so great that in its last report over 99,000 annual treatments are recorded. It constantly draws difficult cases from the city and surrounding country and the most distinguished operators from home and abroad take part in its clinics.

The College which in 1826 had but six, now has twenty chairs, and a total teaching staff of 137 members, comprising professors, assistants, demonstrators and instructors. It also possesses ten large laboratories and seventeen smaller rooms for individual research to properly prepare its more than 750 students to fight disease and death. With its splendid teaching staff, its superb facilities, the liberal policy of its administration and the enthusiasm of its followers, Jefferson Medical College is accomplishing the most difficult task of excelling the great achievements of its past, thus insuring for itself a still more glorious future.

Another Antityphoid Serum.—According to *Wiener Klinische Wochenschrift*, Dr. Jaz of that city has obtained some excellent results from a new antityphoid serum. It is reported that in the wards of the general hospital it has been used on fifty cases with excellent results. Treatment is by the mouth.

ORIGINAL ARTICLES.

FATTY DEGENERATION OF THE HEART.*

BY THOMAS E. SATTERTHWAITE, M.D.,
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FATTY degeneration of the heart was first correctly differentiated from the fat heart of obesity by Laennec[1] and a little later by Andral[2] who called it *ramollissement du coeur*. Laennec in calling attention to the yellow or "dead leaf" color of fatty degeneration referred to the advanced stages of fatty degeneration.

The source of this degeneration appears to have been discovered by Hayem[3] at least so far as typhoid fever is concerned. In 1883 Germain Sée[4] confirmed this view, while in 1891 E. Romberg[5], after an elaborate study of the heart substance in typhoid, scarlatina, and diphtheria, discovered in all of them a granular and fatty degeneration of the heart-muscle, together with a small-celled infiltration of the adjacent connective tissue. In 1898 Bollinger[6] adopted this view and described three degrees of fatty degeneration, though he did not intimate that they might be three stages in the one process. In the same year Dehio[7] confirmed Hayem's views, so that we may now regard the matter of fatty degeneration of the heart as fairly outlined pathologically. It remains for us to attach, if possible, clinical phenomena to the successive stages of its development. Fortunately we appear to have the data at hand for this purpose.

It is very important to put this matter on a sound clinical basis, for how often does sudden death by heart-failure strike down a person who, up to the time of the attack, appeared to have excellent health. In fact, his physician may have examined his heart and, finding no signs of valvular disease, have been content with the diagnosis of a "weak heart," and yet the heart-substance may have been so profoundly diseased that it only needed a sudden, violent, or even prolonged "strain," to cause hyperdilation and cardiac paralysis.

I described such an instance at a meeting of the New York Pathological Society some years ago. A gentleman, seventy-one years of age, after leading an active life up to a year before his death, was suddenly taken with dyspnea after some hill-climbing in California. Up to this time he had never had heart-symptoms. He recovered promptly, however, from this attack. Later he took a 25-mile sleigh-ride and had another attack, but was restored by stimulants. Five weeks before his death he lost consciousness in a street-car, and was taken home with some difficulty. However, stimulants again revived him. An examination by the family physician showed that he was anemic and weak. The pulse could not be felt, and the apex beat was barely appreciable. He did not rally. At the postmortem examination which I made there was a marked blanching of the surface

*Read before the Medical Society of the State of New York, January 29, 1901.

of the body. The lungs were edematous and the kidneys pale and fatty. The heart was not especially enlarged, but it was pale and flabby.

Microscopic examination of the cardiac muscular tissue showed that along the inner wall of the left ventricle the striations were quite gone, though they were fairly well marked at the periphery of the ventricle. There was no valvular disease. In this patient the initial "strain" to the degenerate heart-muscle seemed to be traceable directly to the hill-climbing in California. There were apparently no other lesions to cause death.

The weak heart of fatty degeneration is common enough at all periods of life. In infants and children it occurs during and after the eruptive fevers, diphtheria, acute rheumatism, pneumonia, influenza, or, in fact, any acute attack of fever or toxemia. In senility, at whatever age it may happen, whether early or late in life, it is a phenomenon to be expected. In fact, whenever there is a prolonged fever, toxemia, dyscrasia or mechanical injury, fatty degeneration of the heart may occur. With few exceptions, the so-called "weak heart" is in reality the heart of fatty degeneration, and whenever death is traceable directly to heart-disease the actual cause of death is most often associated with the yielding of the cardiac walls.

And yet, to judge from individual experience as derived from intercourse with physicians and from current literature, the matter is not so understood by the profession at large. In consequence the degeneration is apt to be recognized too late for treatment, as in the case just cited.

It will be the province of this paper to discuss the etiology of fatty degeneration and to point out that it may be separated for practical purposes into three stages, each characterized by definite clinical signs; and to indicate the line of treatment appropriate for each stage.

The early or preliminary stage is the one in which the prognosis is the most favorable for complete recovery; in the second or intermediate stage we should be able to hold the disease in check; in the third or final stage palliative treatment alone is possible.

If, however, we are to grasp the matter intelligently, we must first of all look to the minute structure of heart-muscle. Though involuntary, it is made up, as we all know, of muscle-cells marked by longitudinal and cross striations. The body of each cell is cylindrical and contains one or two nuclei. The nucleus is vesicular and oval and is placed near the center of the cell-body. The cells are not only joined at their ends with contiguous cells, but, through branches with other cells, making in this way a reticular network. The apposition of these cells is effected by a cement substance that is not seen under ordinary conditions, and the network holds in its meshes vessels, nerves and fat.

In inflammation of this muscle the cells become opaque, owing to their infiltration with granular matter, or at least with something presenting that appearance (cloudy swelling), and the particles have been thought to be *albuminoid*, because they disappear to some extent with weak acids or alkalies. A theory has been proposed that this *albuminoid* material may be formed from the cytoplasm of the cells.

Another theory supposes that the granules represent the toxic elements of disease; another that they are effete matters being eliminated; another that they are micro-organisms; another that they are fatty particles in a stage of minute deposition. It is certain that some of them are pigmentary, from which it follows that all of them are not of the same character. It is also certain that in many instances, such as acute phosphorus-poisoning, arsenic poisoning, and typhoid, many of the particles in the first stage are either mainly fatty or of some substance closely allied to it.

In the second or intermediate stage, the muscle-cells are dotted with larger globules of oil and appear to occupy the same position as the "albuminoid" and fatty particles of the first stage.

In the final or third stage, the fatty globules reach a higher degree of development, while occasionally the muscle-cells are pulled apart (segmentation), or broken into fragments (fragmentation), as the result of hyperdilation. In this stage there is an engorgement of the blood-vessels of the internal viscera, limiting their functional activity and causing hyperemia, edema, thrombosis or embolism. Renaut[8] has gone so far as to classify segmentation as a variety of chronic myocarditis, which he has called *myocardite segmentaire chronique*. This view met at first with opposition from Ziegler and Recklinghausen, who regarded segmentation as an agonal manifestation. Hektoen[9] of Chicago, however, has examined eighty hearts to test the matter, and has come to the following conclusions: Segmentation and fragmentation do occur in heart-muscle during life in consequence of irregular contractions or injuries, usually associated with disease of heart-walls. If the segmentation or fragmentation is limited in area it is not immediately fatal. Consequently we are forced to believe that both segmentation and fragmentation are real events in heart-strain, contributing of course to the fatal issue.

Reverting for a moment to the subject of the so-called albuminoid change, a theory has been advanced that in exhausting diseases associated with prolonged fever in which the cardiac muscle is actually starving from lack of nourishment, in its hunger it makes a demand on the store it has already accumulated, *viz.*, the metaplasm of the muscle-cell; but if this is exhausted and more is needed, it is compelled to consume its own substance. Now, the reserve stock in the meshes of the muscle-cells is made up of carbohydrates, and there is no harm done to the cell by this consumption. When, however, the living tissue of the cell has to be sacrificed there is a loss of the proteids or albuminoid substances of the cell and the damage done is directly proportionate to the amount consumed, and yet the combustion is incomplete, a granular *débris* being left behind in the cells. But consumption may proceed a step

further, so that the fatty matters and fluids of the protoplasm are burned, though the combustion is still incomplete, and a further residue of oil is left behind in the cells. And yet even now a restoration of the cells is possible, provided only the nucleus has been left unimpaired. Death of the nucleus, however, means death of the cell.

Quite a different view has been presented by Huchard[10]. It is that the first stage of fatty degeneration is due to the irritation of a micro-organism or toxin, which, if sufficiently virulent, causes inflammation and possibly necrobiosis of the cell ultimately. This last theory is plausible, but it does not apply to the fatty degeneration seen in retrograde changes, such as occur to the parturient heart, the athletic heart and the heart of adherent pericardium, in which the fatty degeneration of certain portions of the cardiac walls appears to be due directly to lack of use, for when certain fibers are no longer needed, they are pretty sure to degenerate and eventually disappear. So much for the theories of the production of fatty degeneration. Accepting the dicta of Hayem, Romberg, Huchard, the acute stage is essentially a fatty one, that is, the acute softening in typhoid, scarlatina and diphtheria.

Fatty deposition or accumulation in the heart, the fat heart of obesity, is quite another condition etiologically and pathologically. Fat accumulates in the connective or interstitial tissue lying between the muscle-bundles. It is the result of overfeeding either with fatty food, or any food material that is in excess of bodily requirements, but the two processes are to some extent allied clinically for the muscle-tissue may suffer atrophy in the fat heart from pressure of the fat tissue, or the fibers may be so separated or overstretched that their integrity is impaired and they will degenerate in consequence. Fatty deposition and fatty degeneration may, therefore, coexist in the same heart, and yet while fatty deposition is apt to cause fatty degeneration, fatty degeneration never causes fatty deposition.

To the naked eye there is little difficulty in recognizing fatty degeneration by its pale yellow color, well shown beneath the lining membrane of the left ventricle or papillary muscles in nearly every heart in which there is chronic valvular disease, but the eye will often fail to recognize it in the softened heart of typhoid fever or diphtheria, for the tissue will not be yellow, but of a muddy, brown color, or, if there is a fibroid element, the color may be violet-brown or violet. It occurs in localized areas presenting a mottled appearance, or is diffuse and the special area of softening is "mushy," so that in handling the heart the fingers sink into it. The left ventricle is chiefly affected at first.

Fatty degeneration taken in the broad sense that I have indicated must be quite frequent. Roemer of Tübingen, between 1870 and 1890, had at his clinic 291 cases of valve lesion, in which 230 showed symptoms of disturbed compensation, while at the same time there were 234 cases that he called myopathic heart-failure, without any lesions of the valves. Now, as most of these 234 cases were really fatty degenerations, heart-failure without valve lesions was about as common as heart-failure with valve lesions.[11] Chronic fatty degeneration of the heart is usually associated with cardiac hypertrophy, atrophy, fibroid disease, fatty deposition, chronic endo- and pericarditis, and some other cardiac diseases. For example, Quain found hardening or calcification of the coronary arteries in 13 out of 33 cases of fatty degeneration; Markham in one out of 12 (Whittaker), so that arteriosclerosis may also be regarded as one of the causes of fatty degeneration. It is an unfortunate idea prevailing in some quarters that coronary disease has a preponderating etiological connection with fatty degeneration, but such is not true, and it is not at all uncommon for me to have a case of fatty degeneration turned over to me with the label "coronary disease." With other physicians I might add the term "myocarditis" means fatty degeneration. Sobernheim, who introduced the word myocarditis in 1837, deserves no credit for so doing, for it supplanted the word "carditis" introduced by Corvisart, and a much more appropriate term.

We usually meet with the chronic variety of fatty degeneration in middle life, and this has been my experience, though it may occur at earlier periods of course. In 88 cases published by Hayden[12] fatty degeneration was found most commonly between sixty and seventy, less often between forty and fifty years of age.

It is extremely important that we recognize the early or premonitory stage, as bearing both on prophylaxis and treatment. Unfortunately this is not always possible. In mild cases the physical signs may be absent, for there may not be any dilatation, and the physical signs depend on this circumstance. Hence the importance of outlining the heart by percussion, variations in outline from the standard will indicate whether the right or left ventricle is dilated, and the position of the apex will aid greatly in determining whether the heart is enlarged. Then the impulse at the apex will be more or less feeble, and the pulse will be intermittent and rapid. The sound of the heart will also be weak. There may not be any murmurs, or, in the absence of valvular disease, there may be systolic murmurs due to muscular insufficiency. If there is hypertrophy of the right ventricle following dilatation of the left ventricle, there will be an accentuation of the second pulmonary sound.

There may also be precordial pain or distress and spells of dizziness or fainting. This stage may last a few days, weeks, or months; or longer after diphtheria and influenza. A few cases taken from my pathological records while pathologist to the St. Luke's and Presbyterian Hospitals, illustrate the subject of fatty degeneration.

Case I.—A drinking man, thirty-eight years of age, entered the hospital with an empyema, the abscess discharging in the mammary region. Pulse 100; respiration 31 to 36; temperature 102° F.; dyspnea, precordial pain, cough, mucous expectoration and night-sweats. After battling with

the attack for three months he died of cardiac paralysis. At the postmortem examination the opposing surfaces of the pericardium were found to be acutely inflamed and were "hairy." The pericardial sac contained three ounces of clear serum. The heart was dilated and in a condition of acute softening. Fifteen ounces of purulent fluid were taken from the pleural cavities. This was an example of fatty degeneration of the heart in the first stage due to a combination of two causes, acute pericarditis and empyema. The cardiac symptoms were not clear, being obscured by those of the empyema.

Case II.—This also illustrates fatty degeneration of the first stage in a marked manner. M. C., thirty-two years of age, widow, stewardess, was admitted to the hospital July 25, 1879, with yellow fever. Her illness dated back only five days, when she was taken with frontal headache and general "soreness" of back and legs. The initial chill was followed by nausea, diarrhea and fever. Pulse 108 and weak; temperature 105° F. On the ninth day she vomited dark matter, became delirious, had albumin, 50 per cent. by volume, with scanty water. At the postmortem examination the heart was found to weigh ten ounces and was soft, flabby and fatty. The valves, however, were free and normal. This fatty condition of the heart had previously been noted by Dr. H. D. Schmidt of New Orleans, as a characteristic of yellow fever, with at the same time fatty degeneration of other internal organs including the brain. This case I regard as another instance of fatty degeneration in the first stage. I made the microscopic examination of the heart.

In the second stage the signs of a dilated heart are more pronounced. The left ventricle may reach to the left nipple or beyond it, while the right ventricle may extend an inch or more beyond the right border of the sternum. The apex may be in the fifth, sixth or seventh space. The pulse will usually be soft, intermittent and slow. There may be and often is a lack of balance between the heart and pulse-beats. There may be a reduplication of the heart-beats. There is one class of patients not infrequently seen in this intermediate stage. They are persons for the most part who have passed middle life, are inclined to be stout, though not always so, but are anemic in appearance. The pulse will be slow, intermittent and feeble, the apex beat hard or impossible to locate by palpation. They will have dyspnea, some precardial oppression, with occasional attacks of dizziness. Gastric symptoms are always in evidence, and occasionally there will be gastric crises alternating with anginoid attacks. Cyanosis will occur a times. Such patients will usually be irritable or whimsical or nervous about trifles, but always concerned about their health. There will be a disinclination to undertake anything new, even to walk, and the gait will be uncertain. Occasionally there will be hemorrhages, usually in the form of epistaxis. Local edema of face, hands and feet will occur at times. The urine will contain a little albumin, and often a little sugar. This stage may last from two to three to ten or fifteen or twenty years, depending largely on the degree of the degeneration and the care the patient takes of himself. I have under my care at the present time several cases in this stage.

The third stage is ushered in by symptoms that indicate secondary implication of other organs. There may now be pseudo-apoplectic attacks, due to cerebral embolism or thrombosis referable to imperfect heart-action. Attacks of heart-failure are more frequent and more alarming. Albuminuria is more pronounced and less amenable to treatment. In fact, symptoms referable to chronic nephritis are the rule. Gastric disturbances become so pronounced that the patient is afraid to eat for fear of the distress it occasions. Local edema passes over into general. Thrombosis of veins may be a pronounced feature. In one of my cases thrombi distending the right external jugular were distinctly felt. A low form of meningitis from effusion at the base may be one of the final events. The mind will be disturbed and there may be Cheyne-Stokes breathing at times, though this is not necessarily a sign of immediate dissolution. But until stasis occurs in internal organs, we should not despair. When, however, it occurs, and this condition characterizes the third or final stage, the end cannot be far off. With great care life may be prolonged a few months. Death may occur, however, not from any of the above causes, but from rupture of the heart. Quain has seen it in 28 out of 83 cases.

This stage is illustrated by the following three cases:

Case III.—A man, forty-six years of age, entered the hospital with signs of general syphilis. He had cough, jaundice, dyspnea and swollen feet. A soft systolic murmur was heard at the apex. The patient died fifteen days after admission of chronic nephritis. At the postmortem examination, the pericardial sac was found to contain ten ounces of clear serum, and there were several milk patches on the heart. It weighed eighteen ounces. There were no valve lesions. The liver was large and fatty. The kidneys were the seats of chronic nephritis. At the autopsy the murmur was held to be muscular and due to fatty degeneration of the heart. Syphilis was pretty certainly the remote cause of the fatty degeneration.

Case IV.—The following is another of my cases: A woman, thirty-eight years of age, who said she had suffered from "malaria," was admitted to the hospital with edema of the lower extremeties. She complained of attacks of palpitation, with precordial pain, tonic spasms, and dyspnea. The pulse was intermittent and the aortic second sound accentuated. The patient died of cerebral hemorrhage. The autopsy disclosed general arteriosclerosis with chronic diffuse nephritis. The heart was dilated and soft, but the valves were free and sufficient. The cause of the fatty degeneration in this case was arteriosclerosis, and the death by cerebral hemorrhage illustrates one of the several ways in which the end comes at last.

Case V.—A woman, sixty-three years of age, with a history of articular rheumatism, was ad-

mitted to the hospital with cough, hemoptysis, dyspnea and chronic nephritis. She had a systolic murmur over the apex, and also over the aortic and pulmonary areas, with accentuation of the second pulmonary sound. She died of cardiac paralysis and chronic nephritis. At the autopsy the heart was found to weigh twelve ounces. The valves were free and sufficient, but the cardiac walls were soft and flabby, and the cavities of the heart were dilated. The heart and pericardium were united by an old adhesive pericarditis. The liver was large and fatty. In this instance we have the fatty degeneration of the heart always found in adherent pericardium, though the toxins of rheumatism may be assumed to have been early factors in causing degeneration independent of the pericarditis, which operated in a purely mechanical manner to produce the fatty change. This case is another instance of fatty degeneration in the third stage.

If, then, we realize that this affection of the cardiac wall is incidental to the infective diseases, continued fevers, septic or suppurative processes, toxemias, dyscrasias, hypertrophies and atrophies, we should be on our guard to protect the patient against the inherent damage to the heart resulting from these several conditions. So we should hope either to prevent a break down of the cardiac walls, or certainly to postpone it. In infants or young children convalescing from eruptive or continued fevers, we should watch carefully their "weak hearts," and with them rest in bed and minute doses of iron and strychnine, perhaps in conjunction with some malt preparation and cod-liver oil or quinine, will usually be sufficient in uncomplicated cases, provided the diet is carefully regulated, and hurried movements, straining of muscles and nervous excitements are avoided.

In young people, such, for example, as are anemic or tuberculous, gymnastic exercises are appropriate for the intermediate stage, provided they are given under suitable medical direction and are not carried to the extreme that is customary at the present day in gymnasiums and outdoor sports. There are plenty of schools for physical instruction under medical supervision, where those convalescing from illness with weak heart-action can be greatly improved. On the other hand, we cannot too strongly condemn the class exercises of the day, if the patient has heart-weakness or in fact any form of heart-disease. Class work calls for uniform movements, usually rapid, giving few intermissions for breathing, so that it is suited only for those whose hearts are sound.

In fact, every case of weak heart should be treated by itself, whether in the young or old, and the exercises should never be carried to the point of increasing the rapidity of the heart's action beyond its normal range, which of course differs with each individual, for although we have adopted an artificial standard for the rapidity of the pulse, one man's normal pulse may be 60 or perhaps less and another's 100 or more, in some instances. Systematic exercise of a specially-prescribed variety should be insisted on, because habits of indolence tend to a fat heart, and will increase the difficulty. In fact, oily matter of any kind should be consumed by muscle work. At the same time, patients should be put on a specially-restricted diet. It prevents gaseous distention of the stomach and intestines, which provoke cardiac disturbance.

When young or old people have not the strength for voluntary gymnastic exercises, they should have resistant exercises with or without massage. These exercises are more thorough than massage, and tend to rid the muscle-cells of their granular contents, be they toxic or otherwise. But with delicate patients massage and exercises may be too severe a tax on the strength, producing too profound a reaction. The treatment should always have the effect of toning up rather than relaxing the individual. Carbonated baths, of course, are to be used in conjunction with resistant exercises in the intermediate stage of the disease; but baths and exercises are of little or any use in the third stage. And yet while they may not do any good, they may not do any harm. Massage may, however, be very grateful.

Roemer, quoted by Whittaker,[14] reports that in 234 cases of heart-weakness without valve lesions, where 81 of them were treated by the mechanico-dietetic, improved Nauheim plan, 46 recovered and 17 were improved. But neither exercises nor baths should be instituted until a careful physical examination of the patient has been made. If, for example, he is suffering from a violent attack of palpitation, rest in bed in a quiet room and a restricted diet should be ordered. Milk is excellent if it agrees with the patient. Some simple sedative like the bromide of camphor may be given, though I have often seen such patients recover from even severe attacks without any medication addressed to the heart. However, aconite in one-minim doses is sometimes useful, or a belladonna plaster may be applied beneath the breast. But if the palpitation is neurotic, such heart tonics as spartein sulphate, strophanthus, convallaria and digitalis should *not* be given. Valerian is better, and minute doses of calomel, with or without an enema, are usually soothing. In ordinary cases of fatty degenration, the patient, if he is anemic, should be put on iron; if tuberculous, on malt preparations and creosote or cod-liver oil; if atheromatous, on the iodides; if rheumatic, on antilithemic diet and remedies in conjunction with the hot-air treatment.

In the third stage, when all hope of cure by any of the above measures is at an end, and it is merely a question of prolonging life and alleviating suffering, digitalis is appropriate if there is an effusion referable to the failing action of the heart through inaction of the kidneys. In Merck's digitalis in 1/100-grain doses every few hours I have found the most satisfactory method of giving this drug. But it should not be continued more than a week or so at a time, and strychnine should follow it to maintain its effects. Other remedies that are useful in this stage are nitroglycerin, caffeine, strophanthus and spartein. Attacks of difficult breathing, if not severe, are relieved by oxygen gas, while

sudden attacks of true or false angina are best treated by the nitrites. I am apt to use a solution in these cases containing nitroglycerin, 1/100 grain; amyl nitrate, ¼ grain, menthol, 1/50 grain, and oleoresin of capsicum, 1/100 grain, all suspended in 10 minims of castor oil. A single capsule containing these ingredients I have on hand when these attacks are expected, and a single dose usually suffices. But even in the third stage it must be remembered that the degenerate heart has a most remarkable capacity for recovery, even without the so-called heart stimulants. If given their action should be constantly watched and in any case they should be used for only the briefest possible period. These remarks are especially true of digitalis, strophanthus, spartein and strychnine.

The prognosis of fatty degeneration varies with the stage, the individual and his environment, and the influence of the disease that has produced it, for fatty degeneration is not strictly a disease *sui generis*, but rather a degenerative process superinduced by a number of diseases. For example, the fatty change attendant on infective diseases or toxemias should disappear entirely, provided the heart has had rest during the stage of convalescence. On the other hand, if during convalescence the patient has been called upon to do an improper amount of physical work, dilatation may ensue and fatty degeneration in the second stage may be initiated. It is now believed by competent authorities that in infants and young children fatty change in the heart as an incident of infective diseases, or as a sequel to them, is quite common. On the other hand, a moderate amount of fatty degeneration is not inconsistent with an average life; in fact, there is a certain amount of fatty degeneration in most adult hearts otherwise sound, reflecting probably the methods of life in what we call civilized communities, where our intellectual rather than the physical parts of our system are most in use. This is well shown in the hearts of athletes. For when hypertrophy has been caused by severe training, there seems to be always a certain amount of fatty degeneration coincident with the gradual return of the heart towards its normal size, which retrograde process takes place when athletics are given up for the ordinary routine of a business or professional life. In such cases, however, when the enlarged heart fails to contract to the normal size, we may infer that the delay is owing to some other organic heart-affection, such as valvular disease or mechanical injury, as from an old strain.

In the middle point of life, when degenerative changes are the rule, a weak heart may be toned up and restored to a fair degree of soundness by appropriate treatment, though I can hardly believe a permanent cure is effected pathologically. It is one thing to restore an organ so far that it is sound physiologically, quite another to have it sound pathologically. But it is a triumph in medical art to restore the functions of the heart.

In the final stage when anasarca supervenes and the kidneys, from hyperemia or structural changes, secrete a lessened amount of urine, containing albumin and granular cells, and there is transudation of fluids into the bronchi or lungs or chlylopoetic tract, interfering with the functions of these organs, the prognosis cannot be favorable. The fatal issue is certainly near at hand, and, though the heart may be sustained and the kidneys forced to do better work, it is a struggle in which Nature will eventually triumph, most likely by thrombosis, embolism, perhaps apoplexy, meningitis, or uremia.

In conclusion: Fatty degeneration of the heart is a common affection, though it is not to be classed as a disease *sui generis*, but rather as a metamorphosis or process attending on loss of compensation in valvular diseases, but also nearly as often on non-valvular diseases.

It is caused by fevers, toxemia, dyscrasias, disorders of nutrition, and mechanical injuries, but it may also be a physiological process as, for example, in senility or after parturition.

For practical purposes, it may be divided into three stages, the first or early; the second or intermediate, and the third or final, and each stage is capable of being distinguished by certain clinical signs.

In the early stage the prognosis is best for complete recovery, that is, if the patient does not yield to the primary disease, for in that case he will probably recover with a sound heart, provided of cause the heart complication is properly treated.

In the intermediate stage the prognosis is not good for the arrest of the fatty process *in toto*, but the functions of the heart may be so improved that the patient should be able to resume his former work and enjoy a fair degree of health for an indefinite period. In fact, we may expect a physiological if not a pathological cure.

In the third or final stage, which is marked by such profound implication of the internal viscera that their functions are in abeyance, the prognosis is always unfavorable. The end will rarely be delayed beyond a few months.

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Horseflesh as Food.—Health board inspectors have recently found that there is quite a demand for horseflesh among the poorer classes of the East Side. A butcher of Carmine street was found to have 600 pounds of it in his store. He says that for more than six weeks he has been selling horsemeat steaks and that his customers have made no complaints but on the contrary are pleased to get meat at the low price at which horsemeat is sold.

A CASE OF PUERPERAL SEPSIS FROM RETAINED LOCHIA (LOCHIOMETRA) WITH REMARKS.

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ON July 24, 1900, Mrs. A. B., primipara, outpatient of the Mothers' and Babies' Hospital, was delivered of a male child after a labor presenting no unusual features. Except for a marked scantiness of the lochial discharge, the puerperium was uneventful until the sixth day when the patient suddenly developed a temperature of 103° F. and a pulse of 120. On the morning of the seventh day she was seen by a member of the house-staff and received an intra-uterine douche. At about 8 p. m. of the same day when first seen by the writer her temperature was 102.6° F. and her pulse 120. On vaginal examination it was found difficult to explore the intra-uterine interior, owing to the exaggerated anteflexion of the uterus, but traction upon the anterior cervical lip combined with suprapubic pressure sufficed to restore the uterus to its normal position and digital examination showed no remains of placenta or membrane. The uterine cavity was again irrigated. On the following day the patient's temperature was 98.6° F. and her pulse 104; on the next day the temperature was 99° F. and the pulse 78. There was no further intra-uterine treatment and her subsequent convalescence was uninterrupted.

This case is not reported because of its rarity, for such cases are by no means uncommon, but the fact that English and American text-books ignore the subject altogether seems a sufficient warrant for reporting it and for drawing certain general conclusions with reference to the etiology, diagnosis and treatment of puerperal infection. The prevention of infection is the supreme duty of the accoucheur the most important part of the management of normal labor. This is now generally recognized, though the means employed for the attainment of this end are often faulty. But the obvious corollary that, since puerperal infection is ordinary wound infection, the different kinds of infection should be carefully classified for purposes of intelligent diagnosis and treatment is very commonly overlooked.

In the eyes of those who still treat puerperal infection from the standpoint of the last decade, the problem is a simple one and its solution equally simple. The uterus is scraped with the curette. The results are justified by the following statistical fallacy. Many cases, of course, recover and would recover under any treatment. These are set down as successes. Some cases do not recover or are made worse, and here the infection was too virulent or the curette was not used early enough. By this kind of reasoning in a circle, the utter neglect of scientific study of puerperal infection is made convenient and easy. Time and space forbid a general discussion of the subject of curettage in puerperal sepsis. The modern standpoint has been sufficiently presented by Ohlshausen and Veit, Ahlfeld, Bumm, Whitridge Williams, and many others who have amply demonstrated its uselessness in many cases, and its danger in others, but as is usually the case with methods of treatment which have become popular, its practice will long outlast the demonstration of the fallacy involved.

It is such an easy solution of the question Puerperal infection is regarded as a kind of morbid entity localized within the uterine cavity and removable by mechanical means, and so sepsis localized in vagina or cervix, sapremia from retained lochia, streptococcus infiltration of the uterine wall, fever due to infected thrombi in distant regions, and general lymphatic septicemia, are all treated in the same way.

The prompt success of proper treatment in the condition under consideration adds another restriction to the routine use of the curette. Although intra-uterine irrigation was used as an additional precaution it is quite probable that reposition of the uterus with an ice-bag over the fundus would have been sufficient. Several recent text-books state that every case of puerperal infection should be treated by early curettage, and in at least one well-known maternity hospital, not long ago, every febrile case was curetted as the first measure of treatment. Curettage for the removal of retained lochia would be ludicrous if it were not dangerous, but that it has many times been practised cannot be doubted in view of the above advice and practice. So much for the bearing of this case upon the general subject of the treatment of puerperal infection.

A word with reference to diagnosis. The sensation communicated to the palpating finger in these cases is a peculiar one. The uterus has a boggy semi-elastic feel, which has been compared to that of the pregnant uterus. This was especially noticeable in the case referred to, and is, as the writer believes, characteristic of this variety of infection.

In this connection it is well to note that the description commonly given of the physical signs of puerperal septic endometritis often serves to lead the student astray. What are the physical signs of an endometritis due to a sapremic or streptococcic infection, a putrid or septic puerperal endometritis? In the text-books this question is answered as follows: "The uterus is enlarged, sensitive to pressure, has a boggy feel, etc." One cannot resist the conclusion that some writers have written from an academic rather than a practical standpoint, that they have pictured septic endometritis, not as by careful examination they have found it to be, but as reasoning from analogy they have thought it ought to be. In a careful and painstaking examination of a considerable number of cases of fever after delivery, the writer failed as a rule to find the above signs, and further observation has furnished him with ample confirmation of the statement of Ohlshausen and Veit that without bacteriological examination there is no positive diagnostic sign, except in those cases in which

a history of retained placenta establishes the diagnosis of putrid (sapremic) endometritis.

It is probable that in most cases, if one is familiar with the various types of infection, the diagnosis can be made with a reasonable degree of safety by a process of exclusion. But the physical signs mentioned in the text-books are in the majority of cases absent or ill-defined. They are the symptoms of diffuse metritis not of endometritis. The general recognition of this fact by the text-books would do a vast deal of good. It is the failure to find these signs which leads to the non-recognition of sepsis, which furnishes excuse for carelessness in the management of labor and in operative technic, and gives plausible ground for the diagnosis of influenza, malaria, etc., so often gravely made by men who ought to know better.

In sepsis from retained lochia, however, we do find an enlarged uterus, the enlargement disappearing with the cause. The possible, though rare, occurrence of this form of sepsis from retroflexion of the puerperal uterus should not be forgotten.

The patient's temperature, as already stated, was 103° F. In discussing the differential diagnosis between sapremic and true septic infection, most text-books lay stress upon the higher temperature-range of the latter. That this test is not always to be relied upon must have been forced upon the observation of every careful observer. That lochiometra may be, and frequently is, accompanied by a temperature of 103° F. or more, cannot be doubted. The pulse is a better criterion. A continuously rapid pulse is indicative of true septic infection. But even this sign may fail for the first day or two, the slow pulse of the puerperium persisting, and the pulse may be temporarily rapid from fright and nervousness on the part of the patient. That high temperature and pulse-rate are temporarily much exaggerated by the reflex influence of sudden uterine distention is well known.

Bacteriological examination is the final test, but is, of course, unreliable unless made by an expert and with every care to avoid contamination of the specimen by vaginal or cervical secretions. Moreover, bacteriological examination, while highly desirable from a scientific standpoint, does not always subserve the interests of the patient. All careful observers have noticed the occurrence of extension of infection as the result of curettage, and even of the intra-uterine douche. This extension is the result either of the production of abrasions which constitute new avenues of infection, or of the breaking-down of Nature's leucocytic barrier by which, ordinarily, the progress of infection is prevented. Now, common sense would indicate that to distend the vagina with a speculum, transfix and draw down the cervix, scrub its canal and then explore the cavity of the uterus is a procedure not to be undertaken unless there is a prospect of some compensatory benefit to the patient. That this is true has been shown by the recent experience of Franz (*Beiträge zur Geburtshülfe und Gynaekologie*, 1900, Hft. 3), who found that in a large proportion of cases the procedure was followed by a rise of temperature, this being especially noticeable in the cases in which the streptococcus was present. Although his examinations were conducted with the most scrupulous care, he was led to discontinue them out of regard for the interests of his patients. Thomen has also noted the occurrence of a chill and fever after bacteriological examination.

A careful study, then, of other diagnostic signs is important since it is evident that bacteriological examination should be restricted to those cases in which it is necessary for purposes of treatment that the diagnosis be made with absolute certainty; and, as the consensus of modern experience and authority is strongly against active local treatment in true septic (pyogenic) endometritis, it is evident that these cases will be exceptional, unless time proves the efficacy of the serum treatment.

It is often assumed that the mere presence of the streptococcus is evidence of the extension of infection beyond the endometrium, but this is plainly incorrect. This organism is present not only in severe cases, but in all grades of mild cases. Perhaps the last authoritative word upon this subject is that of Kroenig and Menge in their report to the Paris Congress. They conclude that, while of all the offending organisms the streptococcus has the greatest tendency to migrate from the original focus of infection, in the majority of cases, even when the streptococcus is present, the infection remains confined to the endometrium, the process being one of intoxication rather than infection.

The ordinary type of puerperal sepsis, then, is not a general nor even an extra-uterine infection, but an endometritis, septic or putrid, and its extension beyond the endometrium is to be determined by clinical rather than bacteriological data. To wait until the bacteria are found in the blood-current, as has actually been suggested, is to wait too long.

The symptoms of lochiometra usually develop rather late in the puerperium, perhaps at the end of the first week. This is the period at which the signs of uterine and para-uterine phlebitis are noticed. In both cases the uterine interior is smooth. The disastrous results of curettage and even of intra-uterine douching in these cases of phlebitis have been noted in many cases which have been reported and in many more which should have been reported.

With reference to etiology of these cases, the question remains to be answered, How do the bacteria gain access to the genital canal? This question is too often ignored altogether. Anteflexion of the puerperal uterus, with consequent lochial retention can be regarded only as a predisposing cause. We often read of decomposing lochia, but the dictum of science is positive. Neither lochial fluid nor other organic substance can undergo spontaneous decomposition. Here, as elsewhere, we must try to account for the presence of the offending organisms. Infection may, of course, be transmitted in the usual way,

i. e., by the examining finger, instruments, etc., but since all air contains saprophytes it seems reasonable to suppose that decomposition of clots and other débris may be the result of the admission of air to the vagina and uterus, especially during manipulations in the third stage of labor. This position was taken by the writer in a previous article (*N. Y. Medical Record*, Sept. 17, 1898).

According to Franz the anaerobic saprophytes of the vagina may under certain conditions find their way into the uterine cavity, causing fever of a mild type (*Eintagsfieber*) even in patients who have not been subjected to digital internal manipulations. But the nature of these organisms is by no means well understood, nor has their infectious character been proven, and, moreover, from what we know of Nature's conservative processes in normal pregnancy and labor, the idea of an infectious property in physiological maternal secretions is *a priori* improbable.

Then, too, we must be prepared to answer the question, Why do the germs become active? For it is a fact too often forgotten that the microorganisms of infection, with perhaps the exception of the gonococcus, do not by their mere presence cause fever. If they did it would be far more common than it is. This fact, well known to laboratory workers, is clinically confirmed by the fact that cases treated with no precautions whatever sometimes do well. Saprophytes and pyogenic germs may be present in the vagina and even in the uterine cavity without harm to the patient. Predisposing causes must be present and among these we recognize obstruction to the outflow of the lochia. A consideration of other predisposing causes, *e.g.*, placental retention, frequent vaginal examinations with the traumatism involved, operative procedures, delayed labor, *etc.*, would carry us too far. But the lesson to be learned can be briefly and clearly stated—while the rigorous employment of every method for the exclusion of bacteria is of the first importance, no method of prophylaxis or treatment can be regarded as even approximately correct which does not include a careful study of the predisposing as well as the primary causes of infection.

Superficially considered, there is nothing very striking or dramatic in the study of the various types of puerperal sepsis. It appeals to the thinking man rather than to the mechanical genius. There is more good to be gained by it, however, than by following the migrations of the wandering kidney or suggesting new methods of dividing the symphysis. These things have their place, but it is by the every-day study of every-day topics that we can do the greatest good to the greatest number. And this is the object of our art.

It is a striking anomaly that in obstetrics, the only branch of medical science in which the physician has to deal with two lives instead of one and in which intelligent intervention can do more good than in any other, ancient maxims and stereotyped rules are religiously followed and handed down from one generation to another.

A single familiar case like the one described presents much food for reflection, illustrating, as it unquestionably does, the fact that old errors in the etiology, diagnosis and treatment of puerperal sepsis still hold sway. The remedy is to be found in a judicious questioning of authority and in the detailed and critical study of individual cases. In seeking to clothe a neglected subject with the mantle of true science, we can not do better than to follow the advice of the poet:

"Willst du in's Unendliche schreiten
Geh' nur im Endlichen nach allen Seiten."

MEDICAL AND SOCIOLOGICAL ASPECTS OF THE GALVESTON STORM.

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THE terrible West India hurricane which on September 8th devastated the Island and City of Galveston, as well as the adjacent country for many miles inland, has been described by able writers from all parts of the country. The manifold and heartrending details of the almost unprecedented destruction of life and property have been pictured by the pen and camera of many eye-witnesses, but as the medical and sociological features presenting series of important and interesting facts have thus far not been placed upon record I have taken this task upon myself, and without attempting any exhaustive treatment of the subject I will mention those incidents especially interesting to medical men, and draw such conclusions from them as appear to me to be warrantable. The conditions prevailing subsequent to the storm may be briefly stated as follows:

The appalling loss of life variously estimated as from one-seventh to one-sixth of the entire population amounting to six or seven thousand persons was due to a combination of causes, the chief of which was the failure to recognize the gravity of the situation until it was too late by those who lived in the vicinity of the beach front. Unquestionably many could have been saved had they sought refuge in the less exposed quarters of the city, but the false sense of security, the terrific rapidity of the engulfment and the unprecedented velocity of the wind conspired to swell the mortality to enormous proportions. The immediate cause of death in most instances was drowning. Some were crushed by falling timbers, some imprisoned beneath debris, some killed by flying slate, some knocked from floating rafts and either killed outright or so disabled as to be at the mercy of the raging waters. Sections of railroad track with heavy timbers attached swept with irresistible force, and cutting a wide swath destroyed many.

The doctrine of the survival of the fittest found here an illustration. More women and children were drowned than men, partly for the reason that proportionally more of the latter were enabled by mere physical superiority to buffet with the wind and waters and save their lives, and partly by the

fact that many men engaged in business were unable to reach their homes in the outskirts, and were thus compelled to remain in safer quarters. Out of some two hundred bodies found upon the mainland shore of Bolivar peninsula about 85 per cent. were women and children. Doubtless the same proportion occurred with corpses found elsewhere. The proportion of the injured to those killed was comparatively small, and the wounds, chiefly contused and incised, were in the main of a minor character, most of all the wounds became infected. There were a few fractures of the skull, the jaw and upper and lower extremities. The probable explanation of this fact (*i. e.*, the general insignificance of the wounds) is that those who were badly wounded were unable to save themselves by clinging to rafts or by swimming and consequently were drowned. Most of the bodies found were either entirely nude or with a small remnant of clothing. Of those who were saved many were entirely stripped of clothing, illustrating the extraordinary force of wind and water.

Some remarkable instances of self-preservation were recorded, men or good sized boys being carried to sea clinging to pieces of wreckage and floating for hours, at length by the mercy of the waves, landed upon the shore of some bayou fifteen or twenty miles from the point of departure. In no case, however, was a person of the female sex thus saved. The following incident is of interest. A house at Bolivar Point in which six soldiers had taken refuge was crushed to fragments; one of the number caught a door as it was broken from its hinges; clinging to this frail raft he floated for twenty-four hours, and drifting with the tide was finally washed ashore forty miles distant; he was the sole survivor of the occupants. If all the horrors of that dreadful night could be depicted, a tale would be told which would far exceed anything from the pages of fiction. Many heroic deeds, where lives were sacrificed in the effort to save others were performed and the heroes remain unknown, unhonored and unsung.

A notable instance of life saving which came to my knowledge should not go unrecorded. A cotton screwman named Martin Smith, although a cripple, at the risk of his own life rescued by means of a little boat over forty women and children. In addition a number of men who by holding to the boat were enabled to reach places of safety.

There is, however, a darker side to this picture. Like the foul beasts and birds of prey, who sniff the carrion from afar, hardly had the water subsided before the human hyenas and vultures commenced their nefarious work, mutilating and robbing the dead, breaking open trunks and pilfering the contents, they lined the storm stricken area and systematically stole everything they could lay their hands on. This horde of thieves gathered from every section, they flocked here from the neighboring country. The police authorities were apparently paralyzed and afforded no protection and for three days, until the city was placed under quasi martial law by the State's authorities, these robbers of the dead and unfortunate pursued their infamous occupation unmolested. Thus everywhere the sheep and goats are intermingled. There is a class in every community whose evil instincts are only held in check by the heavy hand of the law. When the opportunity for escaping punishment is presented they are waiting to embrace it, and there is no crime in the calendar they are not ready to commit. The storm was barely over before the better class of citizens organized themselves for the purpose of relief and rehabilitation. These efforts nobly and ably performed were seconded and made possible by the whole souled generosity of the outside world.

An interesting feature of the relief work was its evil effect in stimulating idleness, rapacity and greed. The gratuitous distribution of food and clothing was hardly commenced before it was found to be necessary to take stringent measures to obviate fraud. Repeaters, *i. e.*, those who would go from one ward commissary to another, and thus secure as large an amount of food as possible, were found to be numerous. A large number of idle and vicious persons were perfectly content with the prospect of free food and clothing to quit work and live a life of ease. This fact together with the increased rate of wages and ample employment of laboring men has made it extremely difficult to obtain female help. If the sociological question is ever propounded as to what influence a West India hurricane may have upon the wages of colored cooks, the answer will be easy in Galveston.

To attend to the wants of those sick and injured, temporary hospitals and dispensaries were organized in various parts of the city. Local physicians, assisted by volunteers from abroad, labored diligently and without reward for the benefit of suffering humanity. Many of them devoted their entire time to this work, although their losses were as great as that of any other class. They neither expected nor obtained any remuneration. The fact that some of our profession might be in pecuniary need seems only to have been remembered in one instance. Dr. W. R. Thompson representing the Washington (Pa.) Medical Society sent through Dr. J. R. Stuart, of Houston, fifty dollars, this money was given by me to two young physicians who needed and deserved it.

Coming to a brief consideration of the effects of the storm upon the public health, popular apprehension existed that serious disease would occur resultant from certain abnormal conditions induced by the storm. Let us enquire what such conditions were, their effects and modus operandi.

1st. *Overcrowding.*—About four thousand houses were totally destroyed, it is safe to estimate that at least two thousand more were rendered uninhabitable, upon a basis of four persons to each house, we have twenty thousand less six thousand drowned, leaving fourteen thousand people who were compelled to seek refuge and overcrowd the houses left habitable.

2d. *Filth and General Impairment of Sanitation.*—The elements composing this division are so many it is difficult to enumerate them all. Mentioning only the most important ones, we have (a) the intermingling of the contents of thousands of surface water closets and their deposit in the streets, yards, lots and houses; (b) decomposing bodies of man and lower animals by the hundred, festering beneath the debris for weeks exposed to the rays of a tropical sun; (c) decomposition of an immense amount of other organic material, such as food material of all descriptions. Many carloads of rotting grain made the air redolent. (d) The deposit of silt, two or three inches thick, composed largely of decomposing organic material was universal. In spite of a burning sun and dry weather this deposit retained its moisture. (e) Impairment of drainage. This item has been a very serious one. Always a difficult problem to solve here, now the impediments have increased a thousand fold. Holes and irregularities upon lots, streets, and alleys, destruction of grades and filling of drains, cause the water to stand even after a slight rain until it disappears by evaporation or sinks into the soil. This stagnant water is largely intermixed with rotten wood and other organic material. (f) Impaired water closet facilities. As a result of overcrowding, fecal matter was deposited upon floors, in alleys, upon lots and in the streets. Some public buildings, as the court house, where hundreds had taken refuge, were soon in a fearful condition.

3d. *Excessively High Temperature.*—The following data from the U. S. Weather Bureau is self-explanatory and was kindly furnished by Dr. I. M. Cline, Chief of the Bureau at Galveston. Every day since the storm, until September 30th has shown abnormal high ranges of temperature, varying from 3° to 8° F. The average daily excess for the twenty days was 6½° F. The lowest record was in the 17th, 83° F. The highest on the 16th, 87° F. That this excessive atmospheric heat was contributory with other factors in the development of sickness goes without saying. It is important to note in this connection that from September 30th to November 23d the same abnormal heat prevailed, with one or two exceptions.

4th. Resulting from these and other sources of uncleanliness there was an enormous increase of disease bearing insects, especially flies. Mosquitoes we have with us most always. What part they played in the development of disease will be discussed later. But, oh the flies! Never to the writer's knowledge has the Egyptian plague of flies been so fearful, they literally swarmed everywhere. The atmosphere was almost thick with them. In the butchers' pens and stalls the meat was covered with them, they swarmed upon food in the kitchens and dining rooms and constituted living witnesses of the all pervasive filth and insanitation.

5th. *The Water Supply.*—The city is furnished with water chiefly from artesian wells located twenty miles distant upon the mainland. This is piped across the bay. To a limited extent above ground cisterns or tanks are still in use. The main conduit and stand pipe was fortunately uninjured but the pumping station was destroyed. A water famine was imminent, but fortunately was averted by the wisdom and energy of Mr. McMasters, a member of the board of water commissioners, who immediately organized a large force and worked night and day until the damage was repaired and the water was flowing. For three days, the only source of supply was the tanks and a few underground cisterns, all containing water more or less impure. It was six days before artesian water was plentiful. Is it necessary to proceed further with this enumeration? Surely the conditions were sufficient to warrant the popular fear of sickness. It did not require any expert sanitarian to predict the character of disease likely to prevail, for unfortunately similar conditions have occurred from time immemorial.

Like causes produce like effects. Punishment in the shape of disease and death is sure to follow the violation of sanitary laws. Such radical departures, however, from the customary hygienic status so suddenly produced, as in the case under consideration, must be of rare occurrence. The sequence of events, the manifestations and modus operandi constitute the most interesting and practical portion of our enquiry.

I shall not attempt to give the experience of other Galveston physicians to any extent, taking it for granted that my own practice will afford a fair index as to the general situation. The first cases of sickness coming under my observation after the storm appeared to be a mild form of malarial fever. It should be mentioned in this connection that the mosquitoes disappeared entirely for at least a week after the storm. No blood examinations were made, but the clinical events and the therapeutic test pointed to malaria. It should be mentioned, moreover, that in spite of the fact that Galveston is one of the worst mosquito infested places in the world at most all seasons of the year, yet malarial diseases have not heretofore originated in this locality except to a very limited extent, while in our neighboring towns of Beaumont, Alvin and Houston, mosquitoes are far less numerous, but malaria much more prevalent. This fact was forcibly brought to my attention recently when I was called to Alvin to attend a case of pernicious paludal fever. Mosquitoes were so scarce that a bar was not required yet pernicious forms of malarial fever were prevalent. There has been, however, a very notable increase of malarial diseases in Galveston since the storm. The following from the records of the Sealy Hospital exemplifies this fact to a more marked degree than the experience of private practice. In August there were twenty-two cases of malarial fever admitted, in September also twenty-two, while in October there were seventy. Most of these were of the tertian form, a small proportion estivo-autumnal and pernicious. While a certain number of these cases were from the adjoining country, a large proportion originated in Gal-

veston. Dr. J. B. Massie informs me in regard to our neighboring city of Houston that there has been no unusual prevalence of intestinal diseases, but that malaria has been more prevalent than for many years past and that many deaths have occurred from pernicious forms; a thing rarely reported in previous years.

Whether the difference in regard to the prevalence of malaria in contiguous places is to be explained by the comparative absence of the Anopheles in one locality and their increased presence in others remains to be demonstrated. In my opinion further investigation will show other sources of malarial infection besides mosquito bites and other explanations of the facts mentioned.

The second form of sickness developed was gastro-intestinal catarrh and dysentery. The disposition to these troubles commenced a week or ten days after the storm and was very generally prevalent. A large proportion of the population were affected. Those who came to the city some weeks after the storm were taken with the same malady. In many instances the type was mild, after some nausea, coated tongue, vomiting and diarrhea, recovery ensued with little or no treatment. In a number of cases there were frequent recurrences. Severer forms of diarrhea and dysentery also were prevalent, the latter often proving rebellious to treatment and tending to chronicity. A number of cases in the hospital were of the amebic form. Children as well as adults and both sexes were alike affected. Enquiry failed in most instances to reveal dietetic errors. The drinking water was chiefly artesian, a week after the storm, and was doubtless infected.

The third form of disease to show itself was typhoid fever. My first case came under observation November 1st and is now convalescent, since then six others have come under my care, three in the city and three on the mainland in the storm stricken area. Other physicians make a similar report. The following from the Sealy Hospital records shows the rapid development of typhoid fever. Commencing October 30th, since that date until November 22d, eight cases and two suspects were admitted. Previously during October and September there were no cases.

Scarlet fever, diphtheria, epidemic influenza and dengue. I classify these infections together for the reason that although reported to be present, neither of them are thus far epidemic. In my own practice I have seen two cases each of scarlatina and diphtheria but no positive case of dengue. That the unhygienic condition of the city is favorable for the further spread of these diseases goes without saying. What the future developments may be, remains to be seen, and will depend upon weather conditions and the adoption of vigorous prophylactic measures.

Cases of Mixed Infection—There has been a very curious intermingling of various morbid processes in households, as well as individuals *e. g.*, in one house there were first several mild cases of gastro-intestinal catarrh, then a severe case of dysentery, then two cases of fever apparently malarial. Then again a person would be attacked with severe gastro-intestinal disturbance, nausea, vomiting, diarrhea, prostration, followed by rigors and intense fever. The beneficial effects of quinine in such cases would seem to indicate their malarial origin. In several instances during the progress of a regular typhoid attack such clinical phenomena as repeated rigors, excessively high temperatures, thickly coated tongue with dentated edges, were indications of malarial complications, which appear to have been demonstrated by their disappearance after thorough cinchonism. Still again the following clinical sequences were noted: Choleraic diarrhea, comatose, malarial paroxysms, albuminuria and pneumonia, recovery ensuing under heroic hypodermatic injections of quinine. The last case was at Alvin, a point twenty-five miles from Galveston, where the conditions subsequent to the storm were similar. It would be interesting to ascertain health conditions in various parts of the State and the prevailing types of sickness in comparison with conditions at Galveston. But being beyond the scope of the present inquiry the ignorance in the management of public medical affairs in this State, and the want of a State Board of Health, would render the task of an analytical study of the subject difficult and laborious.

Coming now to a brief consideration of the modus operandi of the above described conditions and results. The extensive prevalence of gastro-intestinal disorders and typhoid fever indicates the invasion of the food and water supply as well as the atmosphere with pathogenic micro-organisms. The first medium of infection was no doubt the drinking water, although the source of supply is mainly from artesian wells, the water from which is unquestionably pure when it leaves the wells, but which might have become infected in the receiving-tank. For three days, however, this supply was completely cut off and the population depended on cisterns, all of which had been contaminated by intermixture with infected salt spray and the washings from unclean roofs. While the artesian water was turned on at the end of 64 hours the provision was limited until Friday, September 14th. Even after this date many persons continued to use cistern water. Dietetic errors, imperfect cooking and the more or less continued use of canned meats and vegetables was responsible to some degree for gastro-intestinal involvement. The *flies*, however, in my opinion, became the most important media of infection when they became so numerous and so difficult to exclude, swarming everywhere and lighting upon the food from the butchers' pens to the dining table in spite of screens and every effort to exclude them; it is easy to understand how they became bearers of pathogenic germs. That the atmosphere was the medium of infection to a certain extent is also clear to my mind. In numerous instances coming under my observation, persons exposed to the emanations from decomposing bodies and other organic matter were

immediately taken with nausea, vomiting and purging. In other instances houses containing closets connected with overflowing cesspools were contaminated with foul gases. In one such house all members of a large family were sick, some with gastro-intestinal catarrh, one with severe dysentery, others with chills and fever apparently malarial. In another case a man sharing a miserable hut with his horse and cows and breathing the same emanations was the subject of a severe malarial attack. It should be mentioned in this connection that the city is practically without sewerage. There is a private plant, operating in the business districts, which has been condemned by every sanitary engineer who has examined it, which has been foisted upon the city by the verdict of a board of arbitration. Until a modern and more comprehensive system of sewers shall be secured and some adequate method of drainage be adopted, the continued prevalence of typhoid and malarial fever, as well as kindred diseases may be expected. Any scheme of rehabilitation which fails to provide for these great factors in the conservation of the public health will be fundamentally and fatally defective. It is certainly the duty of those best acquainted with these facts to call attention to them in plain and unmistakable language.

CLINICAL MEMORANDUM.

INFANTILISM.

By W. T. ENGLISH, M.D.,
OF PITTSBURGH, PA.

THE case represented by the photograph is that of a child, aged seven years. Her growth has been retarded and she has a much younger appearance. The mother tells me that at birth this child weighed ten pounds and she grew in size until after the expiration of the first year. At an indefinite period in the second year, growth and development were suspended; no physical or intellectual advance was observed, until about eight months ago, when she was brought to me for diagnosis and treatment, November 24th last.

The father and mother are Americans by birth, free from personal physical blemish and of negative heredity. Two other children, older, have always enjoyed excellent health. The weight of this child when first seen by me was twenty-seven and one-half pounds, and she measured just thirty-two inches in length. The general health was mediocre, the tongue furred, the bowels irregular and inclined to constipation. The urine was normal in quantity and repeated analyses did not betray anything unusual. Pulse-rate 100 to 110, respiration 28, temperature normal. Color was pale and anemic. The skin and subcutaneous tissues were infiltrated and were thick and clumsy, to both sight and touch. The cheeks were chubby, the eyelids swollen, nose broad and flattened, the mouth inclined to remain open, the lips thick and pouting. Cushion-like rolls about the neck, axillæ, abdomen and lower extremities, betraying the general dermal infiltration, were objectified in the profile view. The abdominal protuberance, exaggerated buttocks, the massive thighs appeared in contrast with the pallor and the general aspect of disease. The hair was long and of poor quality and was falling out. The teeth were illy formed and snag-like. The nails were dry. The fontanelles were persistent.

More noticeable than these obvious signs of bodily lack of growth were those betraying mental torpor. The child was carried in the mother's arms. She was unable to walk or even to stand unaided, but fell resistless to the side toward which the body inclined. The face was dull and apathetic. Muscular movements of the extremities were sluggish, because of mental dulness rather than local swellings. Mental and muscular energy were wanting. Speech, if attempted, was not intelligible and resembled the echolalia of the feeble-minded.

Diagnosis may be casually made in similar cases, by signs rather than by careful inquiry after symptoms. This is a plain case of infantilism or myxedematous retardation. Myxedema is generally admitted to be a symptom or combinations of symptoms of inherent or acquired deficiency or disease of the thyroid gland. That infantilism is invariably due to thyroid inadequacy is well established. While much is unknown of the morbid anatomy of myxedema, the principal lesion is laid to the charge of the thyroid.

The treatment has been by thyroid extract. The tablets used were of five grains each. These were divided and one-half tablet administered in broth or bouillon night and morning. Gradually increased, the dosage has reached fifteen grains each day. This amount will be continued for some time.

Thyroid treatment, in cases long neglected, may remove the myxedematous symptoms, but has little or no effect upon the cachexia. This emphasizes the importance of beginning treatment at the earliest possible moment, if the hope of a complete cure is to be entertained. The treatment must be persisted in year by year and possibly continued throughout life.

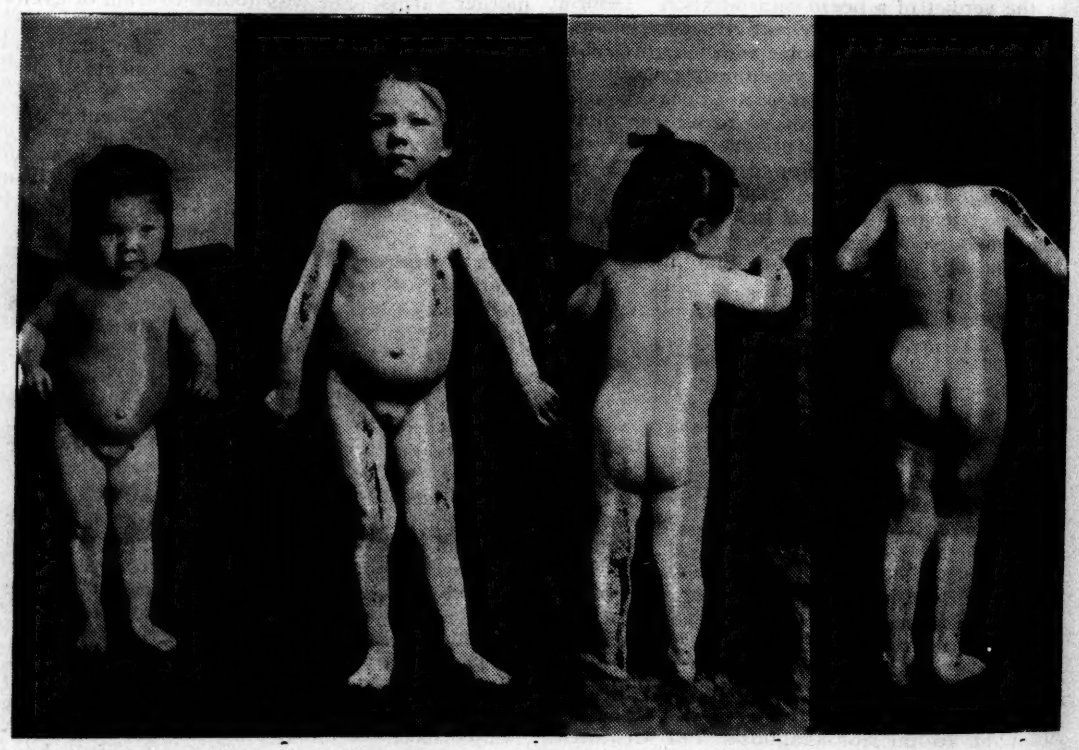
The results of treatment in this case during the eight months under my care are as follows: Weight began to diminish in a few days after the thyroid was employed and the loss of two and one-fourth pounds at the end of two months might have prompted a change but for other hopeful signs. Moreover, this temporary reduction in weight corresponded with the period of most rapid diminution of the dermal infiltration, and during this time the fontanelles closed as if by magic. This loss was recovered rapidly, so that at the end of the third month the weight was the same as at the beginning of

treatment. This ratio of increase continued throughout the fourth, fifth, and sixth months, so that six and three-fourth pounds were added. During June the growth was much slower and three-fourths pounds were accumulated. The total weight gained after recovering the two and one-half pounds lost is seven and one-half pounds; but if we add the two and one-half pounds regained, after reduction of infiltration, there is an aggregate increase of ten pounds. This extends the weight from the original twenty-seven and one-half pounds to thirty-five pounds, the present weight.

anemic pallor of the surface of the body has given way to a wholesome ruddy hue. The hair has improved in quantity and quality and the teeth and nails are assuming a normal appearance.

The changes that have come over this child during the eight months past exemplify what can be done for these cases of myxedematous retardation by the use of thyroid. Muscles and mind are restored to activity, and speech, so long denied, now mingles with song and laughter.

Although still in arrears, compared with children of her age, in mental and bodily capabilities, the prognosis is full of hope. That this child will yet attain mental and bodily vigor, equal to that of other children of the same age, is assured by every return from the treatment during the short period of eight months. Greater results will follow as the treatment continues, and at the termination of another year, few if any traces of the long drowse of mental and physical powers will be detected. At the period of maturity, if the child's health continues, and the treatment is unremitting, there will be an equality, mental and physical, with others of her age, and thus the time lost will be redeemed.



November 25, 1899. July 25, 1900. November 25, 1899. July 25, 1900.

The month of June was the month of the greatest muscular and mental activity of the child's life, and therefore a period of development rather than augmentation in size. In July she increased one inch in height, but the weight remained stationary. The length of the child was found slightly extended after the lapse of the first six weeks of treatment, but a gradual increase has persisted, giving a total of thirty-seven inches—a gain of five inches.

The pulse, respiration and temperature and general health have continued fairly constant to the normal lines. The pulse being the most vacillating, at times, without cause, accelerating and departing from the normal rhythm. The

MEDICAL PROGRESS.

Transmission of Yellow Fever.—The Army Yellow-Fever Board has recently made a very careful investigation into the causation and transmission of yellow fever and seems to have conclusively proven that the mosquito is responsible for the spread of this disease, as well as that of malaria. C. FINLAY (*Med. Rec.*, Jan. 19, 1901) reminds us that he wrote a paper in 1891 in which he advanced the theory that this disease was in all probability communicated by means of the *Culex* mosquito, since it would be difficult to explain the peculiarities in the propagation of this disease in any other way. He was, however, unable to prove his theories. The climatic and topographical conditions favoring the communication of yellow fever are: Temperature from 70° to 90° F.; atmospheric moisture with proximity to the sea and low altitudes (usually not above a few hundred feet). These same conditions are necessary for favorable development of the mosquito. Only lately the crucial test has been made by experimental inoculation. Characteristic attacks followed each of five inoculations after an incubation of three and one-half to four days.

Dyspeptic Asthma.—Nearly all authorities describe an acute form of this condition, with sudden onset after a heavy or indigestible meal and a rapid subsidence of all the alarming symptoms after the stomach is emptied of the gas or disturbing food. F. H. MURDOCK (*N. Y. Med. Jour.*, Jan. 12, 1901) has seen a number of cases which he describes as chronic dyspeptic asthma. It is characterized by severe dyspnea on slight exertion, occurring in patients suffering from gastro-intestinal troubles, without any organic lesion of the lungs, heart or kidneys, and yielding to treatment of the digestive tract. Eating does not usually increase the dyspnea, unless exercise is indulged in; vomiting seldom occurs and belching does not relieve the symptoms as it does in the acute forms. The constant appearance of shortness of breath after the slightest exertion is the chief point of interest. Severe attacks will pass off within a few minutes without the aid of medicine, and without vomiting or belching of wind, but the permanent relief of the symptoms must be sought for through the treatment of the digestive organs.

Ear-Disease.—In a very interesting paper read by W. H. THOMSON (*N. Y. Med. Jour.*, Jan. 12, 1901), on the "Importance of a Knowledge of Ear-Disease to the General Practitioner," he has very clearly demonstrated by practical examples the grave responsibility which rests upon the physician who is unable to recognize the early symptoms of serious ear-trouble and its complications. In speaking of vertigo he classifies it as follows: (1) Gastric or digestive; (2) cardiovascular; (3) ocular; (4) aural. The first may annoy the patient greatly, but he is seldom frightened. The second variety, when due to weakness of the heart, is always accompanied by nausea and is usually transient. Ocular vertigo has a purely psychical basis. It does not occur in the dark, but the eyes must be open and looking out. Its explanation is that the general muscular tonus which maintains our equilibrium has for one of its main elements the knowledge reaching the centers through the optic nerves and when the eyes suddenly find a lack of surroundings the muscular tone loses its ordinary stimuli and general muscular tremor results. Closing the eyes or fixing them upon a near-by object usually relieves the sensation. In aural vertigo, however, when the semicircular canals are involved the patient feels as if he were dropped into a bottomless pit and the employment of the muscular and visual senses are of very little benefit in giving relief. Fear is an invariable accompaniment and may outlast the vertigo. All cases of dizziness, when fear is an important symptom, or which comes on when the patient is lying down, demand a careful examination of the ears.

Treatment of Whooping Cough.—After considering briefly the etiology of this disease H. F. THOMPSON (*Phila. Med. Jour.*, Jan. 12, 1901) discusses the treatment and reports in detail five cases which he has treated recently with heroin. He finds that heroin administered in whooping-cough allays the cough and eases respiration, the number of respirations being reduced, but their force and volume of inspired air being increased. The drug was always well tolerated, and rendered the attacks much more infrequent and less violent, while there was also an improvement in the general condition of the patients. In Case I., aged twenty months, with a very severe cough accompanied by vomiting, heroin, gr. $^1/_{48}$, at intervals of four to eight hours, given for four days, brought about the complete disappearance of the cough with no unpleasant complications. Case II., aged four years, had had pertussis for four weeks. The paroxysms were very severe. Heroin, gr. $^1/_{24}$, was given every four hours for several days, with a rapid amelioration of all symptoms. Case III., an adult, took several doses of heroin at irregular intervals and was much relieved. The symptoms gradually subsided and the cough disappeared. Case IV., aged fifteen months, had had whooping-cough for three months, vomiting every day. Four doses of heroin, grain $^1/_{24}$, stopped the cough for several days. On the reappearance of the cough heroin, grain $^1/_{24}$, three times daily resulted in the prompt subsidence of all the symptoms of pertussis. Case V., an adult, took heroin, grain $^1/_{12}$—in all, six doses—for pertussis which he had had for a week, with the result that the severe retching and almost constant cough disappeared promptly and entirely.

Removal of Cataracts in the Insane.—WILLIAM CAMPBELL POSEY (*University Medical Magazine*, Dec., 1900) cites two cases in both of which loss of sight precipitated loss of mind, and

restoration of vision was attended by immediate and permanent return of normal mentality. The first patient was a man, forty-five years of age, and was said to have had cataracts which had rendered him practically blind for three years previously. His loss of vision was attributed to the grip. His father had been insane. As his vision began to deteriorate, his mind began to fail also. He became irritable, morose and greatly depressed, and thought that his wife and his friends were plotting against his life. He threatened to kill his wife and finally tried to cut his own throat. His condition was one of great depression, he was not excited, but the delusions of persecution persisted. Rest and tonic treatment did no good. Posey examined the man's eyes and found a cataract in each. Under ether the ripest cataract was removed. The bandages were removed at the end of the tenth day. A noticeable improvement in his mental condition began to be apparent as soon as he was permitted to see, even before the correcting glasses were prescribed. At the end of a month his glasses were given him and his mind was in such a condition a few weeks later that he was permitted to go home. There has been no relapse in his mental condition in over two years, and he continues to be a sober, rational and happy member of society. The second case was a woman, sixty years of age, whose sight had been failing for several years, until she was unable to read or to get around the house without difficulty. As her sight failed her mental condition changed. She became much depressed and melancholic, fearing that she was becoming hopelessly blind. An examination showed a cataract in each eye. Her mental condition became so depressed that it was almost impossible to live in the same house with her and it was decided to remove the ripest cataract. Her mental condition became markedly improved as soon as she knew the cataract was removed and that she could see clearly with that eye. At the end of six weeks she received correcting glasses. She regained her normal mental condition and there has been no relapse. Posey thinks that, while such cases are rare and all efforts may be unavailing, every means which may possibly better the condition of the blind insane should be tried.

THERAPEUTIC HINTS.

Hemorrhage in Typhoid.—Avoid all movement, writes Mitchell Bruce, even for the use of the bedpan, collecting the stools in a properly arranged towel. Reduce diet to a minimum, giving, for example, half an ounce of peptonized milk every half-hour, or a teaspoonful of meat jelly every hour. Thirst may be relieved by wetting tongue and lips, or with a teaspoonful of quite warm water, plain or acidulated; this is better than ice. A hypodermic of morphine arrests peristalsis and aids in producing sleep and mental rest. An attempt should be made to stop the bleeding by astringents, the most powerful of which is a mixture of lead acetate, morphine acetate, and diluted acetic acid in water, or lead-and-opium pill, or lead acetate suppositories; or an ice-bag may be applied to the right iliac fossa. Brandy is to be given, with the finger on the pulse, in greatly reduced dozes at very short intervals, for instance, grams 2.0 (℥ xxx) every half-hour in a tablespoonful of milk, so that whilst the heart is never excited by the alcohol, its strength is sustained. The value of hamamelis, ergot, and turpentine is still an unsettled question.—*Treatment in Practical Medicine.*

Acute Gout.—A sufficient quantity of colchicum should be given, writes Roberts Bartholow, to increase secretion from the skin, the intestinal mucous membranes, and the kidneys, but nausea and vomiting should be avoided. Combination with an alkali increases the therapeutical effect, as:

℞ Vin. seminis. colchici..... 12.0 (ʒ iij)
Spt. ammon. aromat....ad. 60.0 (ʒ ij)
M. Sig.: Grams 4.0 (ʒ j) q. 3 h. until some physiological effect is produced. The London Hospital formula is:

℞ Tinct. colch. sem..... 1.3 (℥ xx)
Potass. bicarb..... 0.7 (gr. x)
Aq. pimentæ.....ad. 30.0 (ʒ j)
for one dose. After the more acute symptoms have subsided the following of Sir Henry Halford may be used:

℞ Ext. colch. acet..... 0.4 (gr. vj)
Pulv. ipecac et opii.....
Ext. colocynth. comp. aa. 0.8 (gr. xij)
M. Ft. pil. No. xij. One night and morning.
Or the following:

Ext. colch. acet..... 0.7 (gr. x)
Pulv. digitalis.....
Ext. colocyath. camp. aa. 1.3 (gr. xx)
Ft. pil. No. xx. One two or three times a day.
—*Materia Medica and Therapeutics.*

Pericarditis.—If sthenic, writes H. A. Hare, five or ten leeches may be placed over precordium, and aconite or veratrum administered. Calomel, gram 0.03 (gr. ss), every hour, with opium to prevent purgation, tends to prevent plastic exudate. An ice-bag to precordium quiets the circulation, lessens inflammation, and reduces temperature. If effusion takes place, the heart may need digitalis, caffein, or alcohol; if effusion is large, aspiration is advisable. The best place for making the puncture is in the fourth or fifth intercostal space one inch to left of sternum. Should pus be present, free drainage should be gradually established. If the patient is strong a hydrogogue purgative, such as compound jalap powder, gram 1.3 (gr. xx), elaterium, gram 0.01 (gr. $^1/_6$), or a concentrated saline may be effective. A blister over precordium is often of use.—*Practical Therapeutics.*

THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, FEBRUARY 2, 1901.

NEW YORK STATE MEDICAL SOCIETY.

IN his inaugural address before the New York State Medical Society at Albany this week the President drew attention to what is a grievous and outrageous bill presented to the legislators by Senator Grady, of this City. The origin of its provisions appears to be the various hospitals of the city, notably St. Vincent's and Mt. Sinai, in an organized effort to put all responsibility for malpractice upon the attending physician or surgeon and relieve the hospital of it. This means that whatever ignorance of a pupil-nurse, or whatever inexperience of a young interne, or whatever official neglect on the part of the hospital may be adduced as contributive or essential to the victim's misfortune, the final legal responsibility, in terms of money, well-deserved reputation and high professional position, shall rest with the member of the medical board attending the patient.

When one reflects upon the relation of principal and agent existing between these institutions and their attending staff, upon the fact that the medical service rendered is always the best in the power of each and never under remuneration, and upon the universal usage by which a person is admitted as the patient of the hospital and never of any given man, it seems that some one has erred by intention or accident in fancying that such a bill will be just. To defeat overwhelmingly this measure should be the purpose and endeavor of every reputable medical man and organization in this State, whether the effort be made through his own representatives in both legislative halls at Albany or through his Society or in any other way.

At this very session a wise bill will be presented providing that any one suing a physician for malpractice shall deposit a bond which shall be forfeited to the defendant if the suit fail. Hospitals might be included. At any rate, let us not brook for one instant any attempt to work such inexpressible, heinous and outrageous injustice as the bill of Senator Grady implies.

Another question officially brought by its President before the meeting of the State Medical Society is concerned with the organization of an association among the medical profession of the Atlantic Coast States similar to that which exists in the Valley of the Mississippi and Slope of the Pacific. Fully sixty per cent. of our brethren practise along the Atlantic and yet are behind the others in not uniting thus. Such a society would be a potent factor for public and professional good, would deserve the endorsement and cooperation of all first-class men and fulfil many interstate needs. Its official organ would be among the best in the country. We say, then, all hail, success and prosperity to a movement which when duly begun will deserve generously all these and more *in perpetuam.*

Judged from all points of view, scientific, social and economic, the present meeting of the New York State Medical Society was an immense success and the deliberations of this body demonstrate anew its great usefulness to the practitioners of the State.

THE PROGRESS OF MEDICAL EDUCATION IN AMERICA.

WE publish this week the first of a series of articles that will appear from time to time in the MEDICAL NEWS on the medical colleges of the United States.

In contrast to the three medical schools that existed at the beginning of the nineteenth century there are to-day one hundred and fifty-five in this country. Many of these are small and unpretentious institutions, but there are a large number of the first rank, and with their history is bound up the story of the progress of medicine during the century.

The increasing of the former regulation course of two years to four, the illustrating of once dry, statistical lectures with clinical material, the equipment of laboratories for the practical study of every technical branch of medicine, all are not only indications of the increasing power and prosperity of any individual college, but are significant of the vast strides that the subject of medicine has taken, and of the amount of information that every well-equipped institution has stored up for its students.

Nothing, perhaps, indicates the change in the spirit of the times so much as the business methods on which the colleges are now managed. Until within the past twenty years all the medical schools, even those connected with the large universities, were practically private corporations. The members of the faculty took all the fees, spent what money was absolutely necessary to provide what would appear now to be a very scanty and meager education, and divided the profits. But at the present day the fees are taken by a board of trustees, who pay salaries to the faculties and spend the rest upon the development of the college along the most liberal lines.

Every new acquisition to each college has signalized a broader spirit of education for the country at large, for the progress of each is an incentive to all the others. To the medical practitioner the opportunity is given in this series of articles to see, not only what his own *alma mater* has contributed to the profession, but how all have worked together, supplying knowledge, experiment and incentive to investigators and to students, and how the history of the development of the medical colleges of America is in reality the history of American Medicine.

DR. OSLER ON THE PROGRESS OF MEDICINE.

THE lifting of the curse of suffering from the sin-begotten sons of Adam by the medical discoveries during the last hundred years has been the greatest gift of the century.

Dr. William Osler, M.D., F.R.S., in his fascinating review of the history of "Medicine in the Nineteenth Century," published in the New York *Sun* of Sunday, January 27th, states emphatically that, measured materially or sociologically, there is no one thing that can compare with the decrease of physical suffering in man, woman and child when stricken by disease or accident.

The greatest discovery, measured by the life-saving standard, that medicine ever witnessed occurred in the latter part of the eighteenth century, when Dr. Jenner established a means of preventing smallpox. When we remember that 2,000,000 people died in Russia in a single year of this disease, and that it was rare in Jenner's day to meet an Englishman who had not had it, we realize that the century dawned auspiciously with such a discovery.

The first steps toward further knowledge of disease, as Dr. Osler points out, were fundamental and related to a more thorough knowledge of morbid anatomy, physiology, chemistry and pathology. The careful studies by Laennec of the heart and lung and abdominal organs really laid the foundation of modern clinical medicine, and excellent work in France and America differentiated fevers, typhoid, typhus, yellow fever and the malarial group.

But the most distinguishing feature of the scientific medicine of the nineteenth century has been the phenomenal results which have followed *experimental investigation*, along lines which have determined the condition of the organs in health and the conditions under which perversions of these functions occur in disease.

Although the contribution was written for the general reader even physicians cannot help but be lost in wonder, as the vivid strokes of Dr. Osler's pen portrays one discovery after another, that so much has been done in a single century. The exploding of the "spontaneous generation" theory, and the establishing of the bacterial origin of many diseases, the laws of sanitation, and the discovery of means of contagion that have kept bubonic plague and cholera from our shores, the stamping out of smallpox and yellow fever, the blessings of anesthesia in operations and in childbirth, the discovery of antisepsis in surgery, and the lessening of mortality in childbearing, the remarkable methods of treating and caring for the insane, the decreasing number of cases of contagious diseases, and the treatment that tends to recovery, especially in diphtheria and typhoid, the establishing of hospitals and clinics, and the training of nurses, and, above all, the possibility of checking man's greatest foe, tuberculosis, all these factors of modern medicine are the result of the last fifty, many of them of the last thirty years' investigation.

We cannot but wonder how Dr. Osler's summary would read in the year 2001, and whether it would seem but the alphabet of the twentieth century's record. Certain it is that whatever the future unfolds will be the result of the investigations of the nineteenth century.

In conclusion he notes the tendency at the decline of the century to return to psychical methods of cure, in which faith in something is suggested to the patient. "After all," he says, "faith in us, faith in our drugs and methods, is the great stock in trade of the profession. In one pan of the balance put the Pharmacopœias of the world, all the editions from Dioscorides to the last edition of the United States Dispensatory; heap them on the scales as did Euripides his books in the celebrated contest in the Frogs; in the other put the simple faith with which from the days of the Pharaohs until now the children of men have swallowed the mixtures these works describe, and the bulky tomes will kick the beam."

TO EXCLUDE THE QUACK.

A new medical bill has just been introduced into the Senate of New York State which demands the attention of every practitioner in the State. After certain minor modifications it should, we believe, receive their earnest support. The text of the proposed bill is as follows. The matter in italics is new.

Section 1. Section one hundred and fifty-two of chapter six hundred and sixty-one of the laws of eighteen hundred and ninety-three, entitled "An act in relation to the public health, constituting chapter twenty-five of the general laws," is hereby amended to read as follows:

Section 152. Construction of this article. *Any person shall be regarded as practising medicine within the meaning of this act who shall prescribe, direct, recommend, or advise, for the use of any other person, any remedy or agent whatsoever, whether with or without the use of any medicine, drug, instrument or other appliance, for the treatment, relief, or cure, of any wound, fracture, or bodily injury, infirmity, physical or mental or other defect or disease.* This article shall not be construed as *prohibiting the service of any person in an emergency, or the domestic administration of family remedies; nor shall it be construed* to affect commissioned officers serving in the United States army, navy or marine hospital service, while so commissioned; or any one while actually serving on the resident medical staff of any legally incorporated hospital; or any legally registered dentist exclusively engaged in practising dentistry; or any manufacturer of artificial eyes, limbs or orthopedic instruments or trusses in fitting such instruments on persons in need thereof *when such artificial eyes, limbs or orthopedic instruments or trusses are prescribed by lawfully qualified physicians;* or any lawfully qualified physician in other States or countries meeting legally registered physicians in this State in consultation; or any physician residing on a border of a neighboring State, and duly licensed under the laws thereof to practise medicine therein, whose practice extends into this State, and who does not open an office or appoint a place to meet patients or receive calls within this State; or any physician duly registered in one county called to attend isolated cases in another county, but not residing or habitually practising therein. This article shall be construed to repeal all acts or parts of acts authorizing conferment of any degree in medicine causa honoris or ad endum or otherwise than on students duly graduated after satisfactory completion of a preliminary and medical course of not less than that required by this article, as a condition of license.

Section 2. This act shall take effect immediately.

The bill calls for little comment; its provisions are straightforward and its purposes plain. It is not special, nor class legislation; it does not seek to hinder legitimate competition; it is not meant to work hardship on any class, especially not the manufacturers of proprietary remedies, who seem to be arrayed against some of its provisions; it is simply a plea to protect the community from the quack and the charlatan.

"A law for the purpose of protecting the people from incompetent practitioners of medicine, which compels educated physicians to undergo examinations to demonstrate their ability, and which cannot be enforced against quacks and charlatans—who, because they do not use drugs, claim they are not practising medicine within the meaning of the law—certainly cannot be said to accomplish the purpose for which it was enacted." Such are the provisions of our present medical law, and it is time that a more radical and perfect instrument should be placed on our statute books.

THE LUNACY COMMISSION BILL.

THERE is one feature in the modified Lunacy Bill that calls for indignant protest. According to the first provisions of the statute it was necessary for the President of the Commission in Lunacy to be a practising physician of ten years' standing and to have had five years' special training in hospitals for the insane. As it now reads, this last clause is amended and any physician of ten years' practice is deemed a worthy candidate for the responsible position.

We believe this proposition to be preposterous, if not outrageous. There is no work connected with medicine that needs so much careful and special training as that related to the study and care of the insane person. To assume that any physician of ten years' general practice who probably does not see ten patients, in the ten years, afflicted with a mental malady is thoroughly equipped to look after the thousands of New York State's insane is to take a position that admits of little but condemnation. The inference that there are no qualified and able men is distinctly unfounded.

It is to be hoped that Governor Odell's economic utterances are not the usual virtuous platitudes of those in high office, and that in the Brackett Bill he will be as capable of spying this weak place as he is in ferreting out wasteful expenditures of the taxpayers moneys.

ECHOES AND NEWS.

NEW YORK.

Physician to County Jail.—A competitive examination for this position, paying $1,000 a year, open to residents of New York County only, will take place February 16th, 1901, in New York City.

Arsenic in American Beer.—It was stated last week at the meeting of the Society of Chemical Industry that arsenic had been found in appreciable quantities in American glucose, notwithstanding the reports to the contrary. This statement is said to have been made by Dr. A. C. Langmuir, of New York. Should this be true its presence in beer could not be gainsaid. Dr. Coblentz, of the College of Pharmacy, maintained that the Gutzeit test employed by Dr. Langmuir was not a trustworthy one to decide the question.

New York Academy of Medicine.—Order of business for stated meeting, February 7th, 1901: (I) Presentation of a bust of the late Dr. Horace Green, by Dr. D. B. St. John Roosa. (II) Papers on the Conservative Operations upon the Uterine Appendages. (*a*) On Their Technic, by Dr. Dr. J. Riddle Goffe. (*b*) On the Significance and Importance of Such Conservative Operations, by Dr. W. M. Polk. (*c*) On the Immediate and Remote Results in One Hundred Cases of These Operations, by Dr. W. L. Burrage of Boston, Mass. (*d*) An Experience in One Hundred and Twenty-five Similar Cases, by Dr. A. P. Dudley. Drs. Coe, Boldt, Wiggin, and Grandin will take part in the discussion.

Dr. Frank C. Merriam.—The Society of the Alumni of the City Hospital at their last meeting adopted the following preamble and resolutions on the death of their fellow member, Dr. Frank C. Merriam: "*Whereas,* In the death of Dr. Merriam we have lost an esteemed and valued friend, associated with us in the membership of our Society for nearly its entire existence, we desire to acknowledge the mutual friendship and helpfulness we have enjoyed from these years of association. Therefore, be it *Resolved,* That we express our sincere and heartfelt sorrow at his death, and that our deepest sympathy be tendered to his bereaved family. Further be it *Resolved,* That a copy of these resolutions be sent to the family, to the medical journals, and be entered upon the minutes of our Society. Adolph Rupp, M.D., A. T. Muzzy, Wm. L. Stowell, *Committee.*

New York State Medical Association.—A meeting of the members of the Fifth District Branch of the New York State Medical Association residing in Westchester County was held on Tuesday, January 22d, at two o'clock, at the house of Dr. N. J. Sands in Portchester, at which was organized the Westchester County Medical Association and the following officers elected: President, Dr. N. J. Sands; Vice-President, Dr. J. L. Porteous, of Yonkers; Secretary and Treasurer, Dr. Donald T. MacPhail, of Purdy Station, N. Y.

A meeting of the members of the Second District Branch of the New York State Medical Association residing in Rensselaer County was held in Troy on January 10, 1901. The Rensselaer County Medical Association was organized, by-laws adopted, and the following officers elected: President, Dr. C. S. Allen, of Rensselaer; Vice-President, Dr. M. B. Hutton, of Valley Falls; Secretary and Treasurer, Dr. F. A. Smith, of Troy.

Mount Sinai Hospital.—Work is to be begun immediately on the new Mount Sinai Hospital, which is to cover the entire block between Fifth and Madison Avenues and 100th and 101st Streets and is to cost, including the site, $1,600,000. Of this amount all but $225,000 has now been subscribed. That was the announcement made last week when the Mount Sinai Hospital Association held its annual meeting in the Hospital Training School, at No. 149 West Sixty-seventh Street. The annual report acknowledges donations to the new enterprise to the amount of $470,000. Of that sum $75,000 has been subscribed to the building fund within the last two weeks, and other individual donations of $50,000 and $20,000 respectively are now made public for the first time. There will be in all nine buildings. Their general style of architecture will be Romanesque and the material used will be brick, with stone trimmings. The executive building and wings will occupy the 100th Street side. On the 101st Street front will be the building for surgical and medical cases which will have accommodations for about 360 patients. The dispensary building and training school will be on the Madison Avenue corners, while the private hospital, perhaps the most ornate structure of all, will have the frontage in Fifth Avenue. Accommodations for the children's pavilion, kitchens, laundry, isolation and pathological buildings will be found on the 101st Street side.

PHILADELPHIA.

Philadelphia Hospital.—Plans for a new site and buildings for the insane department and a building for the treatment of skin diseases have been approved. With improvements and a complete reorganization it is destined to become one of the greatest public hospitals in the world. Thirteen additional members of the medical board have been recently elected, making in all 66 visiting physicians.

Antivivisection Society.—The annual meeting of the American Antivivisection Society was held in this city January 24th. Addresses were made by Matthew Woods, M.D., who was elected President for the ensuing year, and by others. The Secretary's report drew attention to what were declared to be abuses of vivisection at Jefferson Medical College during the past summer, certain people having been disturbed by the cries of dogs coming from a room in the College. It was claimed that the authorities of the College refused to answer letters regarding the matter. Inquiries fail to show that such letters were received.

Medical Schools and the State Medical Council.—The discussion regarding the requirements of candidates for license to practise medicine in Pennsylvania and, growing out of this, the entrance requirements of medical schools, is still in progress. A recent issue of the *Pennsylvania State Medical Journal* gives the position taken by the Council. The report that the large number of failures—42 per cent.—at the December examination of the Board was due to the raising of the literary standard was hardly correct. A member of the Council states that a large number of the 87 candidates were those who had previously failed one or more times, although the grading was perhaps a trifle more close than usual.

Hereafter a graduate in medicine who has not had four years' instruction in a medical school cannot take the examination for State license. This ruling clashes with medical schools which allow college graduates, students in dentistry, pharmacy, etc., to enter the second year. The Medical Council disclaims any attempt to discriminate against collegebred men, but wishes to see the standard of the medical profession raised, the barring of illiteracy, and the inauguration of a systemized curriculum in every medical school, such curriculum extending over four full years. It is the belief of the Council that medical schools should have such a curriculum that students must enter the first year of the course, a thorough preliminary education being needed for the comprehension of even the first year. It is stated that the only medical school in the State which has thus far adopted a systematized curriculum is the University of Pennsylvania. As a result of this only ninety-eight out of between two and three hundred candidates were accepted in the examinations of the fall of 1900.

CHICAGO.

New Editor of "Chicago Clinic."—This journal hereafter will be edited by Dr. M. P. Hatfield.

Appointment of Dr. Zapffe.—Dr. Fred C. Zapffe has been appointed Professor of Histology in the Medical Department of the University of Illinois (Chicago College of Physicians and Surgeons).

Smallpox.—The City Health Department has called attention to the fact that nearly all the persons who are suffering with smallpox at the Isolation Hospital were never vaccinated or had not been vaccinated in recent years.

Additions to the Corps of Teachers at Rush Medical College.—These are D. G. Lingle, Professor of Experimental Physiology; W. D. Zoethout, Laboratory Professor of Neurology; F. C. Waite, Assistant in Anatomy, and C. H. Miller, Technical Assistant in the Department of Anatomy.

Chicago Neurological Society.—At a meeting held January 17th, the following officers were elected: President, Dr. Hugh T. Patrick; Vice-President, Dr. L. F. Barker; Recording Secretary and Treasurer, Dr. Sydney Kuh; Corresponding Secretary, Dr. Charles H. Lodor; Member of Council, Dr. Daniel R. Brower.

Disinfection of Books.—The Board of Public Library Trustees recently adopted a resolution by Dr. W. A. Kuflewski, of providing for the appointment of a special committee to disinfect all the books on the shelves of the library. Several cases of disease have recently come under the observation of Dr. Kuflewski which convinced him that disease is spread by means of the books in the public library. Sick people are great readers and frequent the library more than any other class. The books can be disinfected at a small cost, and the public is entitled to this protection.

American Medical Missionary School.—Backed by the Battle Creek (Michigan) Sanitarium, the American Medical Missionary College in this city will erect two four-story buildings for its own use in the neighborhood of the Cook County Hospital. These buildings will house the college, hospital and afford dormitories and dining-halls for the students. The outlay contemplated is $150,000. The college has been in existence five years and was incorporated under the laws of Illinois. Dr. J. H. Kellogg is the chief physician and instructor at the college.

GENERAL.

Plague in England.—Another death from the plague has occurred among the members of the crew of the British steamer "Friary," which left Alexandria December 22d, bound for Hull, by way of Algiers.

Society of Pathologists and Bacteriologists.—An American Association of Pathologists and Bacteriologists was instituted at a meeting held in New York City January 26, 1901. The fol-

lowing officers were elected: Dr. W. T. Councilman, President; Dr. H. C. Ernst, Secretary; Dr. Eugene Hodenpyl, Treasurer. The first regular meeting of the Society will be held in Boston April 5th.

Plague in San Francisco.—Professor Frederick G. Novy, of the University of Michigan, left last week on an important mission for the United States government. He goes in all possible haste to California to investigate the likelihood that the bubonic plague, or "black death," is about to break out there, and, if such be the case, to institute every repressive measure known to medical science. It is understood that Dr. Novy is to carry on the work suddenly interrupted by Dr. Kinyoun's illness.

"Journal of Hygiene."—The first number of this new journal, to be devoted to original work in hygiene has just appeared. The senior editor, Dr. George F. Nuttall, is well known for his excellent work. The papers in this number are varied and valuable. Anopheles and the Distribution of Malaria, Pathogenic Organisms in Milk, Industrial Lead-Poisoning, Carbonic Acid in the Air, Artificial Modification of Toxins, Isolation Hospitals and Scarlet Fever. These, with other short notes, show the wide interests that the new journal will subserve. It is to be published quarterly at a price of $4.00.

American Medico-Psychological Association.—The next annual meeting of the American Medico-Psychological Association will be held in Milwaukee, Wis., June 11, 12, 13 and 14, 1901. The date has been placed a little later than usual that this deservedly popular convention city may be visited at a pleasant season. Hotel Pfister, selected for the meeting of the Association, has ample accommodation for all members and offers special rates. Its rooms are airy, spacious, and well furnished; it has an excellent auditorium, a pleasant restaurant, and a large banqueting-hall. A full attendance at the meeting, which promises to be one of unusual interest, is earnestly desired. Will those members expecting to read papers, kindly send titles thereof to the Secretary as early as possible. It is announced with much satisfaction that Dr. Warren P. Lombard, Professor of Physiology in the University of Michigan, will deliver the annual address. This will have to do with Re-enforcement and Inhibition of Nervous Processes.

Cause of the Queen's Death.—The most authentic account of the cause of the Queen's death is that derived from the *British Medical Journal* as follows: "The Queen's health had been failing for the past twelve months. The symptoms were mainly of a dyspeptic kind and were accompanied by impaired general nutrition and periods of insomnia and later by occasional slight and transitory attacks of aphasia, the latter suggesting that the cerebral vessels had become damaged. Dyspepsia, which tended to lower her Majesty's original robust constitution, was especially marked during her last visit to Balmoral. It was there that the Queen first manifested distinct symptoms of brain fatigue and lost notably in weight. These symptoms continued at Windsor, where, in November and December, 1900, slight aphasic symptoms were first observed. They were always of an ephemeral kind and were not attended by any motor paralysis. The Queen suffered unusual fatigue on her journey to Osborne on December 18th, showing symptoms of nervous agitation and restlessness which lasted for two days. A few days before her final illness, transient but recurring symptoms of apathy and torpor with aphasic indications and increasing feebleness gave great uneasiness to her attending physicians.

On January 16th the Queen showed for the first time some symptoms of mental confusion. By an effort of the will, however, Her Majesty would for a time, as it were, command her brain to work, and the visitor of a few minutes would fail to observe signs of cerebral exhaustion. On Thursday of week before last the mental confusion was more marked with considerable drowsiness and a slight flattening was observed on the right side of the face. From this time on aphasia and facial paresis, although incomplete, were permanent. On Friday the Queen was a little brighter. On Saturday evening there was a relapse and graver symptoms, which, with remissions, continued until the end. It is important to note that, notwithstanding the great bodily weakness and cerebral exhaustion, the heart's action was steadily maintained to the last, the pulse at times evincing increased tension, but always regular and normal. Frequently the temperature was normal. Throughout the last few hours of life paresis of the pulmonary nerves set in, but the heart beat steadily to the end. Beyond the slight right facial flattening there was never any motor paralysis. Except for the occasional lapses, the mind cannot be said to have been clouded, and within a few minutes of her death the Queen recognized several members of her family."

Obituary.—Dr. James Watson Stronach, formerly a New York physician, died suddenly last week at his residence, 35 Romore place, Belleville. He was sixty-seven years old. Death was due to heart trouble. Dr. Stronach was born in Forres, Scotland, and came to this country in 1860. He was graduated from the College of Physicians and Surgeons in New York and practised for some time in this city.

Dr. William H. H. Parkhurst, eighty-eight years of age, died in Frankfort January 22d. He was one of the oldest doctors in the Mohawk Valley, having been in constant practice since 1839. During his later years he took great interest in the germ theory, and contributed very materially to researches in that direction.

Dr. Eliphalet Nott, a well-known physician, died at his home in Rexford's Flats, Saratoga County, January 22d, aged sixty-seven years. He was a nephew of the Rev. Dr. Nott, for many years President of Union College.

CORRESPONDENCE.

OUR LONDON LETTER.

[From Our Special Correspondent.]

LONDON, January 19, 1901.

THE ANTI-TUBERCULOSIS MOVEMENT—FORTHCOMING CONGRESS ON TUBERCULOSIS—ACTIVITY OF THE NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION—A CENTURY OF MEDICINE—PROGRESS OF CREMATION IN ENGLAND—DEATHS FROM DRINKING ARSENICAL BEER.

A BRITISH Congress on Tuberculosis will be opened in London on July 22d, 1901. It will be held from Monday, July 22d, to Friday, July 26th. Every British colony and dependency will be invited to send delegates, while the Governments of Europe, Asia, and America are invited to send representative men of science and others, who will be guests of the Congress. Papers will be read and clinical and pathological demonstrations given, detailing medical and sanitary experience in the treatment of tuberculosis throughout the world. A museum will be a special feature of the Congress and contain pathological and bacteriological collections, charts, models, and other exhibits from widespread sources. Authorities in this and other countries will be invited to supply documents on the historical, geographical and statistical aspects of the subject. Practical resolutions will be formulated to indicate the public and private measures best adapted for the suppression of tuberculosis. The work will divided into four sections, as follows: Section I., state and municipal, President, Right Hon. Sir Herbert Maxwell, M. P.; Section II., medical, including climatology and sanatoria, President, Sir R. Douglas Powell, Bart.; Section III., pathology including bacteriology, President, Prof. Sims Woodhead, M.D.; Section IV., veterinary, President, Sir George Brown, C. B. The Secretary of the Committee having charge of the museum is Dr. W. G. Horne, 27 New Cavendish street, Harley Street, London, W., to whom all communications relative to the museum should be addressed.

The National Association for the Prevention of Consumption and Other Forms of Tuberculosis is issuing to corporations, urban and rural councils, boards of guardians, medical officers of health, and other sanitary authorities, suggestions in respect of voluntary notification and of provision for open-air treatment for pauper consumptives. A number of towns have adopted notification. Where the usual notification fees are paid the system appears to have been successful; where they are not, unsatisfactory. The advantages of notification are shown in a tabular form under the headings, "What would be learned" and "What might be done." The latter includes isolation, improvement of insanitary areas and houses, disinfection of consumptives rooms, and the improvement of cowsheds. Useful information as to the present provision for the sanatorium treatment of poor consumptives and the cost of erecting sanatoria, is also given. A number of hospitals now provide open-air treatment for the poor, either free or at a small cost. Boards of guardians are beginning to make provision for the maintenance of beds in existing sanatoria or by adapting special wards in the infirmaries or by erecting their own sanatoria. The main equipments in the construction of sanatoria for pauper consumptives are summarized by the architect of the London Open-Air Sanatorium Association, and the cost of erection and maintenance of existing sanatoria is given.

The beginning of the new century is signalized in the press by a retrospect of the past one and a description of the extraordinary scientific progress which marks it as *the* century of science. In these articles the progress of medical science has received due attention. When the present conditions are compared with those at the beginning of the nineteenth century the contrast is startling. Then sanitation was neglected and the mortality of large towns was tremendous. Owing partly to the "window tax" houses were dark and ill-ventilated. In hospitals gangrene was rife, nursing as now understood was unknown, cleanliness was not thought of and the conditions in many respects tended to foster rather than prevent disease. Vaccination was only in its infancy and the average annual death-rate from smallpox was 3 per 1000. Nearly one-tenth of all the deaths in London were from this disease and the majority of the victims were young. The treatment of the insane was barbarous; they were loaded with chains, beaten, half-starved, and neglected. Ordinary patients, too, suffered much at the hands of the doctors. They were bled and blistered to a most pernicious extent and forced to take large quantities of powerful drugs the action of which was little understood. The nineteenth century has been marked by the displacement in medicine of vague and fantastic theories by a science built on observation. In France the brilliant Bichat, although he died at thirty, founded the science of histology. A few years later Corvisart published a French translation of Auenbrugger's pamphlet on chest diseases, in which was pointed out for the first time the fact that abnormalities beneath the chest-wall could be detected by percussion. Eight years later Laennec invented the stethoscope and inaugurated a new era in clinical medicine. Then came Jenner's discovery of vaccination. The Apothecaries' Act of 1815 had a most beneficial effect upon the education of English medical men. Previously there was no compulsory form of training. In surgery the beginning of the century was made memorable in England by the great names of Cooper, Bell, Colles, and Abernethey. In 1838 the office of register-general was established in England. The government then slowly came to recognize that they had duties in ensuring the health of the public. Clinical medicine was greatly ad-

vanced by Trousseau in France and Sir William Watson in England who not only made valuable observations, but disseminated their knowledge by brilliant lectures. At this time, too, lived Graves of Dublin, "the prince of clinicians," chiefly remembered by the disease which bears his name, but who desired that his tombstone should bear the inscription "He fed fevers." Three physicians of Guy's Hospital, Hodgkin, Bright, and Addison, the discoverers of the diseases which bear their names, and Bennet, who first observed the characteristics of leucocythemia, made British medicine famous throughout Europe. But the most valuable of all the discoveries of the middle of the century was anesthesia. Before its advent a patient awaited operation as a criminal did execution. In 1846 Wells and Morton discovered the use of ether and in the following year Sir James Simpson, the use of chloroform. The germ-theory of disease established by the immortal researches of Pasteur and its invaluable fruit, the antiseptic system of Lister, are too recent to require comment.

Cremation is becoming more popular in England and has at last been established on a commercial basis. The Cremation Society of England commenced operations at Wolsing in 1885, when only three bodies were incinerated. Since then the number has gradually increased. In 1894 the number was 101; in 1899, 240; and in 1900, 301. Of course these numbers are very small when the population is taken into account. But it must be remembered that the only crematorium available is inconvenient and expensive. The cost has been greatly reduced in the last ten years, but is still too high. A fresh chapter in the history of the movement has now been started. The London Cremation Society has been started which believes that cremation may be profitably placed on a commercial basis. A freehold site has been purchased at Hendon just outside the boundary of London. Two or three crematoria at first will be erected, on the newest and most approved principles, with a chapel, waiting-rooms, attendants' lodges, and provision for the erection of private as well as public buildings for the reception of cinerary urns. At Hull the first municipal crematorium in England has been erected at a cost of £2,500.

Four more deaths from poisoning by arsenical beer have been reported to the Manchester coroner. All occurred at the workhouse hospital. Ten more summonses were issued against publicans for having sold contaminated beer after the issue of a warning. Another fatal case occurred near Spalding, the victim being a young laborer. Inquests have been held at Salford (near Manchester) upon the bodies of two women whose deaths it was alleged were accelerated by arsenic poisoning. The medical evidence showed that they had suffered from pains in the hands and feet and pigmentation of the skin. In one case the verdict was, "Death from bronchitis, but hastened by alcoholic neuritis;" in the other, "death from arsenical poisoning." Since the discovery of arsenical poisoning from beer-drinking, the Manchester coroner has held twenty-one inquests. In eight cases death was found to be due to arsenical poisoning, in seven to natural causes, but with symptoms of arsenical intoxication, and in two death was accelerated by arsenical poisoning.

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The Ninety-fifth Annual Meeting, Held at Albany, January 29th, 30th and 31st, 1901.

FIRST DAY—JANUARY 29TH.

MORNING SESSION.

Inaugural Address.—The President of the Society, Dr. A. M. Phelps of New York, opened the meeting with his inaugural address and made among other recommendations these as of special importance. In view of the large amount of work falling to the Chairman of the Legislative Committee, who, on account of the intimate relation between the activities of the two offices, should also be the Assistant Secretary of the Society, he thought an annual salary of $500 should be voted. Without some such reasonable stipend it is almost impossible to find the right man for the place, able and willing to give his energy and time gratis. The old method of making members of the Society answered well when the organization had the granting and revoking of licenses within its power. Now that such functions are properly vested in the Board of Regents, other considerations make an enlarged membership desirable; for instance, the division of the body into sections for research. Instead of there being one delegate for a three-year term from each assembly district, at the end of such term eligible for membership, let there be two delegates for a one-year term each. In this way during the next three years a large increase of members will occur and then sections can be recognized. The Society should have 3000 members in this State which shows one-eighth of the total number of physicians of the State.

The wisdom of holding the annual meeting during the January deliberations of the Legislature is manifest, so as to impress the opinions of the Society upon that body. It would be very wise in the name of more purely scientific and social relations to have a second meeting each year to be held in turn in the cities of the first class. The Society possesses no office as such of assistant secretary, but by change in the Constitution and By-Laws this should be created. Such incumbent should collaborate with the Secretary and for convenience be the Chairman

of the Legislative Committee, as explained at the opening of this address. There is a bill before the Legislature now introduced by Senator Grady of New York, providing that all suits for hospital malpractice shall be against the medical attendant and not against the institution. The manifest unfairness of this in the face of facts, so well known about the relations of medical appointees to their hospitals as not to need mention, make it necessary for every medical factor in the State, individual and organized, to enlist himself strongly to defeat the measure. The union of the medical profession in the Pacific and Mississippi Valley States into their respective societies emphasizes the lack of a corresponding society in the Atlantic States, although 60 per cent. of all the American physicians dwell within them. Action should at once be taken by appointing a committee to open negotiations and, if possible, perfect arrangements. The wise legislation corrective of the notorious tenement abuses should be furthered by the Society in every possible way. Fitting tribute should be paid by the Society to the deceased honorary members, J. M. Da Costa, A. Stillé and S. F. Purple, and the deceased permanent members, W. M. Smith (long-time secretary), L. C. Gray, H. D. Noyes, and H. T. Hanks.

Executive Session. — Drs. Ely (Rochester) Vanderveer (Albany) and Van Fleet (New York) were appointed a committee to act on the recommendations of the President. Drs. Roosa (New York) McDonald (Albany) and Rowe (Rochester) were named as commission for nominating members for vacancies in the Board of State Examiners. The report of the Committee on Publication was adopted. It recommended the publication of the Transactions of the Society at $1.00 per volume, as last year, in order to put it further within the means of every practitioner. The recommendation of the Committee on Ethics was to admit to representation in the Society the following local bodies: Gloversville and Johnstown Medical Society, Medical Society of Long Island, German Medical Society of Brooklyn, and the West End Medical Society of New York. The Committee on Hygiene reported the law providing the establishment of a State sanatorium for consumptives and recommended the passage of laws for better housing of the poor; for the making of gonorrhea and syphilis amenable to the boards of health like all communicable diseases, subject to notice and registration; and for the better prevention of typhoid fever by improved water supply. A motion was carried making official the interest of the Society in the tenement-house reform. As Auditing Committee Dr. Bulkley (New York) Dr. Brush (Mt. Vernon) Dr. Elsner (Syracuse) were appointed, and their report was adopted in the afternoon. The Committee on Legislation recommended the appointment of a designated lawyer who shall by study familiarize himself with the medical laws and be in position to advise the Society better than any general lawyer not so specializing; also the support of the present bills before the Legislature, especially that defining the practice of medicine in this State. Its report was accepted. *Resolved*, That a special committee be appointed to appear before the Committee on Public Health of the Legislature in charge of this bill. Dr. Elsner of Syracuse was made chairman of this Committee with power to appoint his own associates.

Dr. C. A. L. Reed, President of the American Medical Association, was here welcomed and presented by the President of the Society. In his reply he dwelt on the advantages of unity and solidarity of the profession and mutual understanding on disputed questions. He praised the democracy of the New York State Society and advised further extension of it because the *strong* benefit the Society and the weak practitioners are benefited *by* the Society.

The Prize Committee made the award to Dr. Lucien Howe of Buffalo for his essay on "The Measurement of the Interlocular Base Line and the Size of the Meter Angle." The Committee on the State Board of Medical Examiners made points of interstate reciprocity for licenses, of the superiority of the New York State Medical school graduates and the general good results of the license law since its enactment. On motion of Dr. Elsner of Syracuse a resolution was adopted committing the Society to combat the present effort of the Legislature to cut down estimates for the State care of the insane.

The following gentlemen were elected by districts to the nominating committee: Drs. A. Van der Veer, Albany, Chairman; 1st District, A. E. Davis, New York City; 2d District, W. H. Zabriskie, Glen Cove; 3d District, W. G. Tucker, Albany; 4th District, R. J. Wilding, Albany; 5th District, Nathan Jacobson, Syracuse; 6th District, L. Coville, Ithaca; 7th District, W. J. Herriman, Rochester; 8th District, H. R. Hotchkiss, Buffalo.

TUESDAY—AFTERNOON SESSION.

Pneumonia Therapeusis.—Recent progress in the treatment of acute lobar pneumonia was the topic discussed by Dr. J. K. Crook of New York. He stated that considerable activity in this field has been shown and about fifty contributions to the subject have appeared in literature during 1900. It is apparent, however, that no striking innovation and no great advance have been made in the recently-proposed plans of treatment. The fifty contributors are at variance as to many minor, but are unanimous as to the fundamental principles of treatment. This consensus can be summed up in three admonitions: (1) Put the patient into bed in as comfortable and well-ventilated a room as possible; (2) give him nutritious and digestible food in moderate, not overabundant quantity; (3) watch him carefully. There are no other routine measures applicable to all cases without exception. No patient should be

obstetrical paralysis, dislocation or fracture. Non-development has been assigned as a cause, but in six autopsies by Stone was not present. The differential diagnosis is all-important and quite simple. Careful examination will show the head of the humerus in place, then the condition must be paralysis. If the head is out there is dislocation. If all the bones are manifestly small, there is arrest of development. The symptoms are those of any subcoracoid or subspinous displacement, upper arm flexed, abducted, rotated inward, elbow flexed, forearm fully pronated, wrist and fingers flexed. The treatment is, if possible, non-operative reduction and its maintenance. If the deformity recurs persistently, then the open operation must be done. The conclusions are as follows: (1) Differentiate at the outset between dislocation and obstetrical paralysis. (2) Adopt treatment early, first reduction, then operation, if the former fails. (3) Every infant at birth should be examined for trouble in the bones, joints or nerves. (4) From the fact that fracture of the glenoid cavity was present in three of Phelps' cases and that the history of difficult labor is always present, it is likely that obstetrical paralysis proceeds from the same source and is not itself a cause of the displacement. Arrest of development is also in the same relation to this condition and is not to be assumed as present unless the whole shoulder girdle is also affected. (5) The prognosis of early operation is most excellent. (6) As in congenital hip, so in congenital shoulder dislocation, orthopedic apparatus is of very little value. An excavator, devised by Dijou, was shown and recommended as most serviceable for deepening and smoothing the cavity and edges of the glenoid cavity at the time of operation.

Appendicitis and Diseases of the Uterine Appendages.—Dr. Albert L. Beahan of Canandaigua said that the occurrence of right-side pelvic disease in which the question arises as to the diagnosis between disease of appendix and appendages is frequent and sometimes requires fine distinction. Gross changes in the appendages resulting from disease coexisting with appendicitis are not uncommon. There has not been shown to be any close relation, except of proximity. Functional disease, with disturbance of menses, a dysmenorrhea, exists as a law of cause and effect. Four patients in hospital at the same time recently, unmarried women from seventeen to twenty-three years of age, had had irregular, painful menses. In one of these cases in which an anomaly existed of the appendix passing for a short distance between the coats of the intestine, making a tight stricture, the menstruation had always been painful, and recently a local peritonitis had occurred at the menstrual epoch. Our case-records, other than these four, show that these are not coincidences. A locked or torpid colon, with gas accumulations, an exaggeration of menstrual phenomena, increased pallor, or muddy complexion, languor, pains, nausea or vomiting, pronounced nervous irritability, peevishness, with febrile rise to 99.2° or 100.2° F., especially a single dose of medicine simply because he has pneumonia. Watch for and follow the indications. Recent observers are not a unit as to the best procedure for meeting the needs of the patient, but agree that a careful practitioner can easily outline a course suitable for each case. There is at the present time a distinct tendency to revert to the once time-honored and lately almost entirely-abandoned treatment by bloodletting. All writers admit that the reaction against this measure had gone too far and that a discriminating employment of it is now fitting, because no known procedure will so quickly and fully relieve an overcharged and staggering heart as the withdrawal of a few ounces of blood. The use of cold applications, as by ice-bags and sponge-baths, is now almost universal, and no measure of comfort is recognized as safer in employment and happier in its grateful effects. Arterial sedatives are losing in favor with some and gaining with other trusted teachers. The use of opiates is recommended by some and decried by others. The mean seems to be careful observation for direct indications, such as obstinate insomnia, active nervous disturbance and actual delirium, and then rational fearless administration. Alcohol in drunkards and seniles is good routine treatment, but in the robust should be used only when the pulse is weakened or accelerated. Few such patients with a pulse of 110 require alcohol. Among cardiac stimulants digitalis is less and less in favor, caffeine is much more popular than formerly and strychnine is probably the best for all-round work. The use of drugs supposed to be specific against the pneumococcus has gained little or no endorsement during 1900. Several reports of their successful exhibition have been made, but have really done little to advance the method. The antipneumotoxin plan has had few supporters among the Germans and French this year, but rather many in our own country and some very instructive data collected as to encouraging use both of pneumococcus cultures and of animal serum. Medicine is still face to face with the inability of the experimenters to elaborate an antitoxin of reliable, uniform and stable constitution. Until this obstacle is removed this department of the therapeusis of pneumonia must remain unorganized.

Dr. Bridges of Ogdensburg in discussing said that not all pneumonias are due to the coccus; the disease is often infectious and epidemic. The treatment is solely good nursing, fresh air, opiates, strychnine and alcohol.

Congenital Dislocation of the Shoulder.—Dr. D. W. Marston of New York said that this condition appears to have escaped minute observation up to the present. In literature Phelps since April, 1895, reports 4 cases, Eve since August, 1895, 1, Küster 1 (fatal). Stimpson, Post, Schedé and Stone 1 each. Gaillard had 1 and Phelps 2 cases curable by non-operative reduction. The causes are (1) trauma before or during delivery, (2) prenatal disease, as tuberculosis, osteomyelitis, etc., *in utero*. Difficult delivery may cause either

cially during the latter part of the day, if a tender, enlarged appendix is found, establishes the diagnosis. A recurrence of this group of symptoms at one or more succeeding menstruations may be expected. A hovering of the temperature about the 99.2° F. mark has come to be the clinching test. The tolerance of the female pelvis to disease should not mask the diagnosis, nor should a serious attack of appendicitis be permitted. Remove the appendix early. It will be a surprise to see its condition and a gratification that it was done.

Small Hospitals and Their Administration.—Dr. L. N. Lanehart of Hempstead pleaded for the existence and administration of the small hospital in the small community the following points: Their justification lies in the need of every town for an institution to care humanely and properly for the sick poor and incidentally for such as in virtue of the character of their malady need hospital surroundings. The benefits arising from such is proportionately as great as in large cities. As to the organization, the hospital should be incorporated so as to receive gifts and bequests and hold land. In this State it should enjoy the approval of the State Board of Charities. The board of managers should be relatively large for the more even distribution of work, conveniently thirty, divided into groups of ten each, serving respectively one, two and three years and thereafter elected for three years. Thus the greatest permanency is acquired for it. When practicable business-men and the members of the medical staff should be members, together with the women of the community. The president should be tactful and sensible. Women are best for house, wardrobe, visiting and training-school committee work. The chairman of each should have a place on the executive committee, the other members of which should be the titled officers of the association and the chairman of the medical staff. If such are all men the executive committee will be well balanced. The matron should be a graduate nurse, of good character and given absolute authority in her sphere. Complaints for the sake of the institution should always be handed to the executive committee for decision. The medical board shall be made up of physicians, surgeons, a pathologist, neurologist, ophthalmologist, aurist and laryngologist. These specialists may be rapidly developed, if necessary, or secured as consultants. To the staff the hospital offers the great advantages of association and to the community those of an educator in hygiene and broad medical knowledge. The support of the hospital is a difficult problem and may be in part solved by laws providing that the superintendent or overseer of the county poor shall be empowered to send to the hospital at the public expense all cases needing treatment in an institution.

Application of Vasodilators.—Dr. L. F. Bishop, of New York, made the subject of his paper the necessity of greater conservatism in the use of vasodilators in certain cardiovascular disease. The primary necessity here is as always to treat the patient, not the disease, namely, to estimate and combat the pathological conditions exhibited by him as a special case. The amount of the drug and the time and method of its application depend upon such knowledge. In cardiovascular disease it must be remembered that the heart is merely a muscular dilatation of the vascular tube and shares at the same time the kind and degree of the arterial disease. Tension in the arteries is due to some interruption in the muscular balance in the channels due to parietal, hemic or nervous causes. To restore this balance as rationally and fully as possible is the function of the drug. Hence we must determine always how much, how often and how long shall the drug influence be sought. Again while carrying on this proper medication the hygiene of all treatment must be minutely observed, namely, in a proper proportion of bodily rest and work, in proper food dependent upon the character of the disease fundamental to the cardiovascular lesions, as, for example, nephritis and rheumatism, and, finally, in proper rational living in all relations. Having decided these points care must be exercised to use only the most reliable preparations. In conclusion we must remember that there is absolutely no specific in cardiovascular disease and that our sole object is to compensate for errors in the circulation, and having secured that to maintain it carefully. Successfully done this is all that can be hoped for, on account of the intrinsic pathology of these diseases.

What is Rodent Ulcer?—Dr. J. A. Fordyce of New York read a paper with this title and showed a number of photographs illustrating the clinical as well as the histological features of this affection. He referred to the differential diagnosis of late syphilitic ulceration of the skin, lupus vulgaris (tuberculosis cutis), and the disease in question. He stated that mistakes in diagnosis not infrequently came under his observation. These mistakes in diagnosis are more frequently made in the late stages of this type of cutaneous cancer when it sometimes loses its pearly-gray, ridge-like margin and only appears as a more or less extensive ulcer. The age at which it begins also leads to mistaken ideas as to its nature, for although in the majority of cases it makes its first appearance near the age of forty, it not infrequently begins much earlier in life. The writer has seen it begin about the age of twenty and Hutchinson has reported a case which appeared when the patient was fourteen. Rodent ulcer differs from other types of cutaneous cancer in its apparently insignificant early stage, its excessively slow course and in the absence of little new growth. The ulceration keeps pace with or exceeds the newly formed tissue and thus justifies the clinical name with which it has so long been identified. While possessing little power to infect the general economy, rodent ulcer, when well established, shows a remarkable tendency to recur after removal whether the interference be by surgical or the so-called dermatological methods. That the lymph-nodes are not always spared was shown by a case which the writer had observed in which the lymph-node over the mastoid had been infected by a rodent ulcer behind the ear. The

patient was also afflicted with a rodent ulcer in the typical location, *i. e.*, on the side of the nose extending to the inner canthus.

Rectocolonic Enteroliths and Concretions.—Dr. S. J. Gant of New York said the occurrence of these objects is most common in female adults and in the rectum, although any part of the gut may be their host. Their composition is usually that of true enterolith, hair-ball, gall-stone, urinary pancreatic and prostatic calculi and such miscellaneous material as fruit-seeds, etc. Hair and wood-fiber have both been found in the human, the latter proceeding from toothpick chewing. Stones made of oat and potato-peel fiber are common among the Scotch poor. Gall-stones are very common indeed, and more than any other type of these concretions. The true enterolith (not gall-stones) are found especially in females, single or multiple, weighing from grains to ounces, oftenest in the rectum, colon and small intestine in the named order. Their chemistry is phosphate of lime and magnesia, ammonia and organic matter. Pancreatic concretions are small and brittle and enter by ulceration from the pancreatic ducts. Urinary calculi commonly appear from the ureters into the rectum by erosion. Impacted feces are familiar to all. Prostatic calculi simulate the urinary in route and symptoms. Masses of fruit seeds occur chiefly in the summer when fruit is eaten and usually in children, particularly in the bowels. The symptoms agree with the site of arrest, the number and size of the stones, the duration of their presence, and the lesions of the intestines actually caused by the stones. In brief they are those of intestinal irritation or obstruction depending in degree and results upon circumstances. The treatment is removal by means indicated by the factors present and preventive medication.

Esophoria or Latent Squint.—This was the subject of a paper by Dr. F. Valk of New York. The writer does not believe in the old theory of Donders that hypermetropia is the cause of convergent, nor that myopia is the cause of divergent squint, as there are so many cases that will disprove this theory; nor does he accept the innervation theory of Hansen Grut, but does base his opinions on the so-called muscular theory, associated with the fusion force of the eye. He believes in the power of the straight muscles of the eyes, as shown by their insertion, size and weight, in which one muscle must show a certain power to act under the stimulation of the fusion force and that this power should bear a certain relation or ratio to the action of the other muscles. This power is shown by the prism test, an old and reliable one, and in the writer's opinion, the only one that can be depended upon to indicate properly the true balance of power in these muscles or the want of power, as an unbalance and the probable muscles that are at fault while all other tests can only be used or depended upon simply as confirmatory of this one. That in the relation of these muscles, one to the other, he excepts the abduction, as compared to adduction, as one to three or four and that outside of these limits there may be latent squints. He accepts this ratio as standard. That after testing the muscles by this method one frequently finds homonymous diplopia with the red glass before one eye, a condition indicating the advisability of an operation.

The writer then gives short histories of sixteen cases showing latent convergent squint by the prism test, operated upon with success. The operation consists of a shortening of the external rectus by a "tuck" with a catgut suture, which is inserted while the muscle is held by the twin strabismus hooks, devised by himself. The catgut is allowed to be absorbed and the reaction, if any, is very slight.

Dr. L. Howe of Buffalo said that the estimate of the relation between the muscles must not be too definitely and fixedly adjudged. Otherwise there is danger in making operation the chief cure of such conditions as esophoria which are within reach of other means.

Demonstration of Ophthalmophakometer.—The following technical points were elucidated by Dr. L. Howe of Buffalo on this topic. The first object of this communication was to illustrate the working of Tscherning's opthalmophakometer, no similar instrument having been used before in America for viewing the entoptic images. A brief description accompanied the instrument and was in general the same as that given by its originator in his book on "Physiological Optics" translated into English by Weiland. The second part of the communication related to a simple formula by which it was possible to calculate rapidly and exactly the depth of the anterior chamber; the center of curvature of the anterior surface of the crystalline lense; the center of curvature of the posterior surface of the crystalline lense; the distance of this center of curvature from the posterior surface of the cornea. The third point in the paper was to describe a modification of the phakometer made by the writer. This consists in a change in the telescope by which the former inverted image is changed to an erect image, the magnification being the same or slightly greater. By this means, with a proper arrangement of the light, it is much easier to recognize and study the movement of the entoptic images.

Syphilitic Interstitial Keratitis.—Can interstitial keratitis be prevented in the offspring of syphilitic parents? This was the question propounded and answered in the following terms by Dr. P. A. Callan of New York. It is a fair assumption that syphilis is responsible for the majority of cases of this disease, rarely in its acquired forms, but rather commonly in its inherited manifestations. It usually appears in the latter type during the growing period and has been seen by the writer as early as the fourth and as late as the twenty-eighth year. The offspring of syphilitics who survive the fifth year present few or no marks of the inherited taint. The typical face, that of premature age, is rarely seen. Hutchinsonian teeth are more frequently met, but not such as the text-books describe. Their really distinguishing mark is the peg-like incisors, the small notched ones are very uncommon. Ordinarily there is nothing about

such children to indicate their hereditary taint prior to the affection of the eyes. The inflammation affects both eyes with an interval of about a month, however, in some cases this may be a period of years. Treatment may prolong this interval, but in the writer's experience sooner or later the second eye suffers. He tried in one young female to prevent the development of the keratitis. She had unmistakable symptoms of inherited syphilis, face and teeth both typical. For ten years he had her under observation and more or less regular treatment, and for one year under full tonic and antisyphilitic medication. Nevertheless, at the end of that time she developed a keratitis interstitialis of one eye and after a short interval of its fellow also. One member of a family of children may escape while all others suffer, and conversely one may be attacked and the balance be spared by this disease. There seems to be at present nothing to account for this peculiar discrimination. In conclusion, there is nothing to show syphilitic taint inherited from diseased parents *in the majority of such children as survive the fifth year.* Only a small percentage of such children ever develop this affection of the eyes. In the writer's experience it is impossible to prevent its appearance, at least in a certain number of cases. When one eye is attacked the other sooner or later suffers also.

Menstruation and the Skin.—Dr. L. K. Bulkley of New York considered the relations between certain diseases of the skin and the menstrual function. He said that during menstruation the woman passes through a most active psychical crisis which lasts ten days, beginning slowly, rising to an acme and decreasing to normal conditions also slowly. During this third part of each month her temperature rises, her total excretion of urea is changed, arterial tone is raised, digestion, nerve-function, with other systemic activities, are modified profoundly though temporarily. In many a species of auto-intoxication is present and the reflex and sympathetic nervous phenomena are manifest. At puberty and at the menopause for obvious reasons all or most of these disturbances are much increased, often to an almost pathologic degree. As to the skin he said that through seven years of recorded experience he has noted the influence of menstruation upon it, both in the absence and presence of functional and organic utero-ovarian disease. Forty-two are the total of these cases involving twelve diseases. Such effects are familiar to all at puberty. Acne makes up one-third of all these skin signs, especially on the chin, where it is almost pathognomonic. Eczema is the next best example, and in it exacerbations of chronic forms and even modifications of acute forms occurs at the epoch. In this disease the hands are the seat for most of these peculiar signs. To signify the relation of the skin to puberty he stated that eczema in females is twice as common as in males between the ages of fifteen and twenty years.

In the discussion Dr. Jacobi of New York said that he had in his forty or fifty years of professional life noted several distinct examples of vicarious menstruation present during amenorrhea, from the nose as distinct epistaxis, from varicose ulcers as obstinate oozing and one case from the ear which recurred monthly for nearly a year. He asked for Dr. Bulkley's observations on such cases. Dr. Boldt of New York asked the author for a theory of the cause of such vicarious activity. Dr. Bulkley said in reply that while he had often seen it he could offer no explanation.

Treatment of Chronic Otitis Media.—This was the subject of a paper by Dr. J. F. McKernon of New York. This paper will appear in full in the MEDICAL NEWS.

Hysterical Anesthesia and Analgesia.—Dr. B. C. Loveland of Syracuse reported a case of hysteria in which anesthesia is a prominent symptom, both from the extent and peculiarity of its distribution, and added some considerations in regard to anesthesia as a diagnostic sign. His case presented a complete anesthesia, involving tactile, pain, thermic and location sense, and the areas affected were as follows: Both legs and feet, the upper limit being the groin in front and the gluteal fold behind; both arms, hands and shoulders, the limit above being the collar-bone, and below a line just above the nipples in front, and the lower angle of the scapulæ behind. The patient also showed hyperesthesia over the lower half of the abdomen, and hysterogenic zones below her shoulder-blades on the back. Beside these symptoms there were several other characteristic stigmata of the disorder. He does not describe treatment at length, but used electricity, massage and mental suggestion, with isolation from the family, as important factors in his method. He concludes that anesthesia does not rank with globus or hyperesthesia in frequency, but when found is of marked diagnostic importance and should not be overlooked; that it usually follows a pronounced hysterical crisis and is seldom found in the milder cases; that it does not follow the distribution of any nerve or group of nerves. He then describes the various typical forms, and shows the case reported to be somewhat atypical. The writer also noted the frequent accompaniment of ischemia and the infrequent presence of paralysis in connection with this variety of anesthesia, and that anesthesia, more or less complete, is more frequently met with in cases of hysterical paralysis. When this occurs it conforms to the paralyzed member, contrary to that in organic paralysis of central origin.

Correction of Deformities Following Pott's Fracture.—Dr. W. O. Plimpton said that braces and other forms of support that have been devised for deformities following Pott's fracture are unsatisfactory in application, awkward to wear, and in no wise curative. Operative treatment offers the only means for permanent relief. The degree of dislocation, whether partial or complete, together with the exact relative position of the bones, determines the extent and nature of the operative measure necessary to overcome the deformity. Recent conditions are more easily corrected than late ones, in which fibrous tissue and

muscle have undergone change. In the early malpositions a reproduction of the original fractures by dividing the bones at the site of injury will usually suffice to restore the foot to a normal position. Cases of longer standing, that have undergone change of soft parts of bony surfaces, must be dealt with as the conditions require to overcome deformity. No single operation will suffice for these cases. Do what is necessary, resect bones and cut soft parts to restore the foot to the perpendicular axis of the leg. Place the astragalus squarely on the horizontal plane of the tibia. Restore the mortise of the joint as perfectly as possible. Operations outside the joint like cuneiform or linear osteotomy, do not reduce the dislocations, but simply produce a new deformity to help out another by averaging the deflection of the foot from the axis of the leg with the line of the new position, and are therefore not to be recommended. If resection becomes necessary, confine it to one side of the joint, if possible. By saving the cartilage opposite the cut surface of bone, ankylosis may be avoided. The X-ray will assist by showing the operator what he will have to deal with and aid him in formulating a plan of procedure. Suit the operation to the case at hand for the restoration of the foot to the normal axis of the leg.

Deep Breathing.—Upon the subject of deep voluntary breathing as a curative and preventive measure Dr. J. H. Pryor of Buffalo established the following points: Its importance can not be overestimated, because in modern civilization few of us after childhood breathe deeply. Yet this full lung function means, first, all the proper oxygenation of the blood and its therapeusis is in brief the same as oxygen in the system. At any time of life and for either sex better lung action would be undoubtedly of great value; and in disorders of the blood in which purification and added tone are required it will on trial be found a great adjuvant of other rational therapeutic means. Among such conditions are to be mentioned chlorosis, anemia, and the depreciated states after severe illnesses. When the lungs intrinsically show deficient action, as in the muscularly feeble, or when after disease, especially the various forms of pleurisy, pneumonia and bronchitis, their sequelæ and complications, they are found imperfect in function, it is exceedingly probable that most or entirely all of the difficulty can be eradicated or compensated for by training in forced voluntary respiration several times each day. In children very likely the deformities of the chest incident upon rickets and similar disease could be in part neutralized by proper breathing gymnastics. In the subacute forms of bronchitis and pneumonia we have the air-vesicles glued together with exudate. By opening these, absorption and even discharge of the exudate by expectoration will be initiated and stimulated. In some of the old semi-consolidations of pneumonia a like process obtains, added to the advantage of general stimulation by this process. It is closely analogous to the similar results of massage of joints. This might be called lung massage. Cough is not a contra-indication, in fact has the advantages of expelling exudate. For the inhalation various soothing remedies can be added to the air. The patient should repeat this exercise several times daily.

Dr. J. Riddle Goffe of New York City stated that he had seen great success follow this plan among chlorotic girls. Dr. Styles added that morning exercise and hill-climbing in the erect position are beneficial. Dr. Hopkins of Buffalo recommends horseback-riding as compelling deep respiration. Dr. Goodwillie of New York said that normal alimentation and respiration determine health. Deep breathing is a kind of massage to all the viscera. Dr. Potter of Rochester finds cycling valuable. Trapeze exercise also increases chest diameters and function, also overhead respiratory work.

Indications for Mastoid Operation.—Dr. W. C. Phillips of New York referred to the fact that in selecting the time for operation in mastoid diseases the judgment is frequently severely tested. Opinions vary from operating at the time of invasion of the mastoid to a delay which may lead to extensive complications. There really must be a period in every case when operation should no longer be delayed and his object was to outline those symptoms which point to the desirability of operative interference. All operators cannot absolutely agree with any single opinion. He discussed the indications for operating upon the mastoid in acute cases and emphasized the fact that just at this time mastoid disease is prevalent, secondary to the grip. Whenever mastoid complications are attended by the presence of streptococci, staphylcocci or pneumococci in the pus, the danger of rapid extension of the disease is imminent. In all mastoid cases a microscopical examination of the pus should be resorted to. He described acute mastoid suppuration as an involvement of the bone appearing during the course of acute suppuration of the middle ear. The symptoms are pain, fulness over the entire parietal region and tenderness, especially over the antrum and tip. Temperature should always be considered, but is not an all-important symptom. External periostitis, with or without infiltration of the soft tissues, is a later development. Bulging in the atticus tympanicus and the superior wall of the external canal is generally present. Suppuration of the mastoid should be considered as a complication of suppuration of the middle ear, but further complications were occasionally found, as extension into the surrounding tissues, especially the lateral sinus or some portion of the cerebral cavity. Local bloodletting, real or artificial leeches, ice-coils, hot poultices, and hot-water irrigation are preventive methods. Ice-coils should not be used longer than twenty-four to thirty-six hours. The mastoid operations should be performed in acute suppuration when no permanent remission of symptoms has followed free drainage through the drum or the application of ice-coils, poultices or free local bloodletting. Then

there should be absolutely no delay. It is at this very point that many otologists wavered. The exact time for operating may not be measured by days or hours. In grip cases the destructive process is so rapid that one frequently needs to operate soon after the invasion. He mentioned a recent case of a child, eight years of age, in which he had found it necessary to operate three days after the first mastoid symptoms and found pus, not only in the antrum, but also in the tip. In chronic cases, after all other treatment has failed, it frequently becomes necessary to operate in order to overcome the discharge. Life insurance companies will not accept as risks those who suffered from chronic discharge of the ear.

Belladonna versus Scopolia.—Dr. R. W. Wilcox of New York read this paper. This will appear in full in the MEDICAL NEWS.

Indications and Limitations of the Vaginal Operation in Pelvic Diseases in Women.—Dr. J. Riddle Goffe of New York took the position that any operation that can be done as safely and satisfactorily for the patient *per vaginam* as by the abdomen should be done by that method. The dangers are incomparably less, the convalescence is smooth and the after-treatment simple, the patient being relieved of stitches, adhesive plaster, abdominal binder and dressings. There is no visible scar to continually remind the patient of her experiences, and, above all, there is no danger of hernia. Practically, vaginal hernia or enterocele is an unknown sequela of vaginal section, while cases of ventral hernia following abdominal section, even for the relief of the simplest forms of pelvic disease, are constantly presenting themselves. Personal experience and the careful study of the experience of other operators, both in gynecologic and general surgery, have led the author to the conclusion that the only justifiable radical operation for cancer of the uterus is vaginal hysterectomy. The radical operation through the abdominal incision, which consists in ligating the large blood-vessels of the pelvis and rimming out all of the cellular tissue and lymphatics, with the hope of heading off the invasion before it shall have involved the general system, is an *ignis fatuus* that will shorten the lives of many women and lure the operators on to greater destruction. Examination of the statistics of these operators reveals the fact that the patients thus operated upon (provided they survived the immediate operation) are either all dead, or about to die, or sufficient time has not elapsed since the operation to indicate what the results may be. In the treatment of fibroid tumors the author advocates the vaginal route of attack for either myomectomy or hysterectomy whenever the neoplasm, whether single or multiple, is confined to the true pelvis. In those in which the tumor is sufficiently large to rise out of the pelvis the abdominal operation is preferred. Several cases were reported to illustrate these points. In salpingitis and ovarian abscess, whether single or double, the vaginal method is advocated, and also in displacements of the uterus, in the treatment of which condition, whether complicated or simple, the author considers the shortening of the round ligaments *per vaginam* as the most ideal treatment that had yet been suggested.

In the discussion Dr. Boldt of New York said that the operations for cancer of the uterus should not be confined to the vaginal route, because infection by direct contact with the neoplasm-cells is not yet proved. In interstitial myoma the abdominal route is better for space, and in tubal disease is more rational to avoid complications. Dr. Scully of Rome said that post-operative abdominal hernia can be prevented by care. Dr. Cordier of Kansas City said that complications, accidents and associated lesions can be best treated by the abdominal route.

Disinfection in Diphtheria. — Dr. M. A. Veeder of Lyons discussed disinfection within and without the body in this disease. There are three similar and easily-confused diseases, namely, diphtheroid, true diphtheria, and septicemic sore throat. The first is caused by staphylococci, the second by bacillus diphtheriæ (Klebs-Loeffler) and the third by streptococci. These may be separate. associate or consequent diseases, the graver following the milder forms. The septicemic sore throat is most deadly as a rule, although true diphtheria may be virulent and fatal. Both should be treated by local germicides, isolation of patient, thorough disinfection of articles in contact with the patient, and destruction of all nose, mouth and throat excreta and any other possible source of spread of the disease. Diphtheroid is itself not often a serious or troublesome malady, but becomes important because of its clinical relation to true diphtheria, namely, as precursor. True diphtheria can be carried by the practitioner to himself and to other members of the family and community by too frequent and improperly conducted examinations and by too little personal care after such of his hands, face and clothing. The cough of patients is capable of sending many bacteria the distance of yards into the room. Hence such cough should be turned away from others. The throats of all attendants and members of the same household should be regularly examined to determine whether they be infected, although the individuals are not yet clinically ill. An adequate protection, in his experience, is for the doctor to place a moist mask of gauze over the whole face while making his examination. The mask should each time be burned. A bichloride-of-mercury wash for hands and face should next be used.

After-Thoughts on Diphtheria.—The dread of this disease by patients early enlisted his interest, said Dr. I. N. Love of New York, and the changes of attitude toward it have been noted for fifteen years by him. The discovery of the real cause of the malady by bacteriology was the first great change, followed soon by the development of the antitoxin theory. This antitoxin method of treatment will probably be found, as the years pass, more or less available in a large number of diseases, as, for example, pneumonia, typhoid, tetanus and smallpox, and perhaps ultimately to

all infectious diseases. But credit to it must not overshadow what is due to other improved methods of treatment in hygiene, antisepsis, nourishment and stimulation. It is wise to regard every sore throat as the possible ground upon which a diphtheria may grow and hence to treat them all with this point in mind, by local antiseptics and germicides. The benzoate of soda and bichloride of mercury are invaluable in this connection. Healthy mouths may contain the bacillus, and before the discoveries of bacteriology simple inflammation of the throat went under their right names, which have all become *diphtheria* if the organism be present. Deaths by antitoxin, through impurities or even inexplicable cause, are known, hence its use should be guarded. Best try in addition or even in preference full isolation, thorough disinfection, sensible hygiene and local applications.

Persistent Suprapubic Vesical Fistula.—The treatment of this condition by the Bottini operation occupied the attention of Dr. Willie Meyer of New York through an interesting case which he reported. Three such operations were done, the last by himself, on this patient and permanent cure resulted. The possibilities of this method, when persistence of the fistula depends on prostatic obstruction, are at once apparent.

Fatty Degeneration of the Heart.—Dr. T. E. Satterthwaite of New York read a paper on this subject. (See page 165.)

The Porro-Cesarean Operation.—Dr. J. H. Glass of Utica presented the following as the indications for this operation: (1) Sepsis, actual or suspected after protracted labor or faulty technic of the attendant; (2) cancer of the cervix or lower uterine zone; (3) myomata of the body in selected cases; (4) atresia vaginæ if otherwise no remediable; (5) tumors of the ovary; (6) hemorrhage not otherwise controllable; (7) an insurmountable cause of maternal dystocia.

Recent Experiences With Erythromelalgia.—Dr. H. L. Elsner of Syracuse read this paper. It will appear in full in a subsequent issue of the MEDICAL NEWS.

Results Following the Cure of Chronic Defects of the Vesical Function.—This paper was read by Dr. Eugene Fuller of New York, who said that while a normal bladder empties itself completely at each urinary act, there were numerous factors which served to cripple that function and such, if long established, produce pathological changes in the urinary tract. His article was to illustrate the fact that when such factors are removed the tendency is strongly toward repair. Among these factors are stricture, chronic contraction about the vesical neck, prostatic hypertrophy, calculi and tumors. The direct causes for these conditions were vesical tenesmus, stagnation of urine and urinary infection. Vesical tenesmus long continued against a slowly-increasing obstruction causes hypertrophy of the bladder-wall, even to somewhat over half an inch. Such bladders are of firm and unyielding walls of contracted cavities and of small capacity. Stagnation causes distention, sometimes even rupture. An atonic bladder is one that has lost its contractility by overdistention. The function-crippling factor generally develops slowly, the muscular hyperplasia for some time keeping pace with the increasing obstruction, but at last the obstruction getting too great dilation and stretching begin. The appearance of such cavity is trabeculated and rugous, sometimes deeply sacculated. Chronic vesical stagnation, later affected also the ureters and renal pelvis, and the ureterovesical valves become so patulous as to be almost without resistance. The natural check to reflux is thus removed, hence the development of an intrapelvic pressure and of hydronephrosis. Where the hydronephrosis is extensive the kidney is involved and its function largely damaged. Vesical infection added, the inflammation first manifests itself by a cystitis. It is its ascent up the ureters and into the renal pelvis which was of chief importance. In the renal pelvis it is especially dangerous, because it cripples the renal function by involvement of the tubules. It is reasonable to suppose that these effects, especially if severe, will not immediately disappear after the crippling factor is removed, but it is surprising how soon normal conditions will be effected if the operation and after-treatment had been thoroughly performed. It is important to bear in mind that not only should the disturbing factor be removed, but also vesical rest through artificial drainage should be secured until the lesions in the urinary tract have had time to heal.

A Simple and Accurate Method of Substitute Infant Feeding.—This was the title of a paper read by Dr. H. D. Chapin of New York. There are three equally important factors in the preparation of a substitute for woman's milk: (1) Selection of good cow's milk; (2) modification of the milk with reference to percentages; (3) the choice of a diluent. Milk is rendered unfit for use by growth of certain kinds of bacteria. Growth of bacteria is prevented by cooling milk to below 60° F. Cooling milk also promotes separation of cream. If the milk is bottled right after milking, cream will be up by the time it is delivered to families. There is great variation in richness of milk and cream, but the same milkman's supply is quite uniform from day to day. Calculated mixtures of milk and cream are not accurate and only confuse, as standardized milk or cream can seldom be procured. What is at hand must be used. The variation of milk and cream in milk-bottles is seen in a bottle of milk on which the cream had risen. There are two great classes of milk: (1) That which forms hard solid curds with rennet—cow's and goat's milk; (2) that which forms soft flaky curds with rennet—woman's, mare's and ass's milk. Digestive enzymes act by contact and the food that is most finely divided and can most easily leave the stomach is the most suitable for weak digestions. The proteids of woman's milk easily leave the stomach. Little of the proteids of cow's milk diluted with

water can readily leave the stomach. Diluting with a wheat or barley gruel in which the starch has been digested breaks up the curds. Digested gruel is made by boiling a heaping teaspoonful of flour with a pint of water, cooling and adding an aqueous solution of diastase, that can be made at home from malted barley grains, or Cereo, a preparation of diastase made for this purpose. Specimens of milk diluted with water and digested wheat gruel, and curded by rennet were presented. The curds with digested gruel diluent passed through a sieve having 900 meshes to the square inch, those with water diluent remained on the sieve. Have milk bottled at the dairy. Dip off top nine to sixteen ounces into a pitcher or bowl. Here fat and proteids are in about same ratio as in woman's milk. If a siphon is used the sediment goes into the infant's food. Prepare the digested gruel. Make the infant's food one-eighth to one-third of nine ounces top milk or one-eighth to two-thirds of sixteen ounces top milk, the balance digested gruel. Add one part sugar to twenty or twenty-five parts food. Fine adjustments of percentages are not needed by this method. Nearly the same percentage results will be attained with any milk. Rich milk will be diluted more, poor milk less. Each additional ounce removed from milk-bottles reduces the fat in top milk .5 to 1 per cent., which cuts down the fat in infant's food ⅛ to ⅓ per cent., depending on the dilution.

TUESDAY—EVENING SESSION.

Primary Rupture of Ectopic Gestation.—Dr. G. McNaughton of Brooklyn said that in this abnormality the moment of primary rupture is that for opportune diagnosis. There are three types, ovarian, tubal and tubo-ovarian. The abnormal or ectopic pregnancy is a modern condition more and more recognized by the average practitioner. The writer has seen seventy cases in his own practice. The differential diagnosis is easy, but requires care in the history-taking and physical examination. In brief the early symptoms are those of pregnancy, actual or presumptive which persist for the first two or three weeks and finally comes the primary rupture of the tube either into uterus, adnexum or abdominal cavity, accompanied by pain or discomfort, signs of moderate or intense hemorrhage, and almost always a few ounces of blood through the uterus and vagina, even when the rupture is intra-abdominal. The physical examination shows a soft tender steadily increasing tumor as days and weeks pass until the final rupture. This tumor is almost pathognomonic. The site of ectopic pregnancy is almost always primarily the tube. Ovarian forms do not occur as such. The expulsion of the ovum may be into the uterus or cellular tissue of the adnexum or into the pelvic cavity. The first and third with or without and the second route always with rupture of the tube. Conditions simulating this one in the presence of normal pregnancy are (1) small soft ovarian cysts, especially pediculated and suddenly twisted on this base; (2) fibroids subserous soft and pediculated in the same way; (3) ovarian or tubal or tubo-ovarian abscess occasionally, but the presence of the inflammation differentiates; (4) acute appendicitis. Rupture occurs at about the sixth week. During the interval failure of menstruation or irregularities of it, then the steady pain or discomfort without fever. These are suggestive. Actual rupture has its clear picture. The treatment is to operate before rupture if possible. If rupture is suspected give aconite (no stimulation), ergot and belladonna. Operate at once. After this restore lost blood by saline solution and stimulate against the combined shock of the rupture and the interference.

Dr. Dawbarn of New York reported a case of disseminated abdominal sarcoma which closely simulated ectopic gestation and led to that diagnosis until the laparotomy corrected it.

Leprosy in the Hawaiian Islands.—This matter was reported in full by Dr. C. E. Davis, of Albany. In September, 1898, the writer accompanied the Annexation Commission to visit and inspect officially, the settlement and mode of living of the lepers on Molokai Island. The visit afforded an opportunity for a careful and complete observation of leprosy in all its forms. There are two leper colonies, namely, Kalaupapa and Kalawao, each a little village in itself. Molokai is probably the most complete settlement of its kind in the world and is maintained at a cost of about $90,000 a year. It has stores, markets, dispensaries and cottages for lepers. The majority of the lepers live in cottages, and in the settlement there is a total of 716 buildings. Liberal monthly rations are supplied by the Government. Official measures for the suppression of leprosy were adopted as early as 1865, when King Kamehameha sanctioned a public law providing for a portion of land to be set apart for the isolation of persons deemed, by official examiners, capable of spreading the disease, and for a hospital where persons in the incipient stages might be treated. From this beginning has developed the leper settlement of Molokai, with its hospitals and separate "homes." A year ago the number of inmates of the settlement was 1207; 61 of these being priests, sisters, etc.; 73 helpers, and 1073 lepers. The death-rate per annum varies greatly, often more dying during the year than had been admitted during the same period. Some years, however, the number of deaths is as low as 40 or 50 per cent. of the admissions. Among the causes of spread of the disease are the low moral standard of the natives, their filthy habits of using the same beds, clothing, pipe, dishes, etc., the custom of kissing and nose-rubbing; cohabitation, and bad sanitary surroundings. Vaccination with humanized virus, during the great epidemic of smallpox in 1852-53, is also said to have aided in the dissemination of leprosy. There are three prevailing types of the disease, the tuberculous, the anesthetic, and a mixed form. The symptoms of the first two differ widely, while the mixed

form, the most severe of all, manifests the symptoms common to both the other types. The period of incubation is generally from two to four years, but in some cases even longer. That leprosy is not hereditary is proved both by the very great percentage of nonleprous children of leprous parents, and by the fact that it is now known to be a parasitic disease. Among the many remedies used are chaulmoogra oil, gurgin oil, salol, arsenic, strychnine and creosote. Local applications of ichthyol, chrysarobin, salicylic acid, and goto lotion are also employed. Bacteriologist Hoffman has recently written a very important report on the hypodermic use of chaulmoogra oil. During the five months in which he has been experimenting with it, the results have been very gratifying. Rigid segregation has been the greatest safeguard against leprosy. Without it the disease would have been vastly more widespread undoubtedly among the whites as well as the natives.

Elbow Disability.—Dr. Samuel Lloyd of New York said that in damage about the elbow joint partial or complete loss of function in ankylosis is due to bony obstruction and very rarely indeed, never in his own observation, to fibrous tissue such bony substance may be callous in abnormal amount and unfortunate relation, or pieces of bone floating as foreign bodies in the joint cavity or most commonly faulty and misplaced fragments united to form a deformity. These last may consist of the epiphyses, condyles, head of the radius and base of the ulna and are common enough. The value of the X-ray comes in here to determine cause, degree and site of the obstruction in old and recent cases and to indicate the line of treatment and to verify its proper course and results while they are being established and still open to correction if faulty. The treatment of these cases is easily decided, primary immediate replacement by open operation when other means fail. In compound fracture one does not hesitate to invade an involved joint for replacement why should one not similarly open the joint in these irreducible and unreduced simple fractures? His own results by this method have been entirely satisfactory. The attitude for the after-treatment must be as full flexion as possible to avoid a helpless, useless member if a bad result in the joint supervene.

Dr. Dawbarn of New York said that in the swelling about the elbow so fatal to good diagnosis full anesthesia and the application of an Esmarch bandage from fingers to shoulder will be very serviceable in eliminating the edema. Passive motion should not be begun for about six weeks to avoid undue callous excitation. Dr. Beck of New York said that X-rays are alone the means of good diagnosis. Dr. Lloyd in closing said that three weeks are enough to acquire bony union, strong enough to stand slow gentle motion, to avoid stiff joint.

The Tonometer and Arterial Pressure.—Dr. H L. K. Shaw of Albany read this paper. It will appear in full in the MEDICAL NEWS.

Pleuropericardial and Diaphragmic Adhesions.—Dr. D. H. Goodwillie of New York calls attention to the great frequency of interpleural pathological conditions as compared with other pulmonary diseases, as shown by physical examinations and autopsies. Pleuroplastic exudation, if not early recognized and removed by appropriate measures, thickens the pleuræ, organizes and forms adhesions between the costal and pulmonary pleura, the pericardium, diaphragm and pleura. These latter complications are of serious importance, and are not so readily recognized by the physical examination.

He insists on the importance of a very careful study and observation of rational and physical signs respecting interpleural pathology, the requirements respecting the auscultator having perfect hearing and ability to recognize, first, normal chest sounds and then the abnormal sounds which are in great variety and dependent upon the many pathological conditions. The necessity of a knowledge of the laws of acoustics as applied to the chest sounds, how they are conveyed and changed by passing through the various tissues from the point of inception within to the ear of the auscultator. In the year 1876 Dr. Goodwillie, by invitation of the late Dr. Leaming of New York, examined with him the diseases of the chest in his service at St. Luke's Hospital. One hospital case was given in full and many other from private practice, the autopsies in all cases verifying the diagnosis of pleuropericardial and diaphragmic adhesions. Dr. Goodwillie exhibited colored wax models showing these lesions. During the summer of 1878, by invitation of the Committee of the United States Government appointed to investigate bovine pleuropneumonia, Dr. Goodwillie with others made examination of condemned cattle. The autopsies were immediately performed, showing pathological conditions as found also in the human being.

Differential Diagnosis of Diseases of the Spinal Cord.—Dr. E. D. Fisher of New York said that this diagnosis rests entirely upon one's knowledge of the anatomy and physiology of the various parts of the cord. The anterior horns control the nutrition and action of the muscular system. Any destruction of this part must be followed by muscular paralysis and then wasting away. The lateral tracts have only motor functions, without any sensory or nutritional change. Hence disease here means only paralysis, but without any trophic signs. Since, however, cerebral inhibition is cut off there will be exaggerated reflexes, as seen in lateral sclerosis. The posterior tracts are entirely sensory. Hence in their lesions pain is prominent and other disturbances of sensation and later of coordination, which depends on feeling. Locomotor ataxia is the best example. Diseases classified according to the site of their lesions are in the anterior horns—poliomyelitis, acute and chronic, progressive muscular atrophy, and hemorrhage into the cord substance. All these present paralyses followed by atrophies. In the lateral or crossed pyramidal

tracts there will be lateral sclerosis following myelitis, injury and Pott's disease, all with pure paralyses and no atrophies. In the posterior columns there will be present all grades, degrees and variations of sensory disturbance and co-ordination making the symptom-complex of tabes dorsalis.

Pus in the Peritoneal Cavity.—Dr. R. T. Morris of New York said that leucocytosis is our guide to what is going on in the abdomen and should always be considered as an element of the treatment. Personal resistance by the patient is also a factor. Gauze drains are apt to increase shock by irritating the sympathetic nerve-filaments. Iodine poisoning from gauze may be mistaken for septicemia. Dr. Boldt of New York said that true septicemia is always fatal. Dr. W. G. MacDonald of Albany said that irrigation and drainage cannot be ignored and that the phenomena of no leucocytosis in virulent cases shows that blood count may not help at all.

Spinal Cocainization.—Dr. G. R. Fowler of Brooklyn discussed the indications and limitations of spinal cocainization in surgery. Whenever mental shock from consciousness of the circumstances about the operation and inconvenience from active reflexes are not to be feared, it is a very good substitute for general anesthesia. He has had 104 cases distributed upon foot, leg, knee, thigh, groin, pelvis and its contents, abdomen and thorax. Above the umbilicus this method is very unreliable in degree and duration. The extremities show effect the longest. In brief therefore its best fields are below Poupart's ligament.

SECOND DAY—JANUARY 30.

MORNING SESSION.

After attendance upon an interesting exhibition clinic at the Albany Hospital, the Society listened to a poem entitled Appendicitis by Dr. J. H. Doughty of Matteawan.

On Tendinitis and Tendovaginitis Prolifera Calcarea, with Roentgen-ray Demonstrations.—Dr. Carl Beck of New York read the following history: The patient, a Russian tailor, forty-two years of age, noticed a painless swelling formed at the dorsal surface of his right hand. In September, 1900, the growth had gradually reached the size of a moderately large apple. Osteosarcoma was suspected first, but the Roentgen-rays showed the presence of a chronic inflammatory process and a defect in the third metacarpus. Extirpation revealed a yellow, cheesy mass, filling the bone-defect. The synovia was also partially destroyed. But the most surprising feature of the condition was that the extensor tendons of the fingers, excepting the thumb, appeared as if cemented into one mass of mortar. By dividing this mass the knife gave a loud grating sound. Of the tendon of the third finger only a few rudimentary fasciculi had remained, so that it had to be sacrificed entirely. The fasciculi of the second and fourth extensor tendons were kept apart by the concretions. They were in fact so much incrusted that only a small portion could be left. The weight of the whole amount of the calcareous mass removed proved to be eighty grams. The microscopical examination, which was made by Dr. Henry T. Brooks, showed round-cell granulations and the presence of staphylococci, but no evidence of tubercule bacilli. There were also deposits of phosphates and carbonates of lime. The fragments of the tendons showed granulation of the peri- and interfascicular connective tissue. Hematoxylin colorized the degenerated tissue dark-brown violet and picrocarmin changed it into red.

Treatment of Puerperal Fever.—This was the title of a paper read by Dr. H. J. Boldt of New York. Its varieties are: Acute bacteremia, chronic bacteremia, sapremia, and septic infection; subdivisions may be made from the latter. He thought these terms better than septicemia and pyemia, and the term septic infection used in the broad sense for infection. Acute bacteremia is caused by micro-organisms invading the circulatory system from some primary seat, the infection-producing elements multiplying so rapidly that the patient usually succumbs within five to seven days after the beginning of the disease. Usually the germs are streptococcus pyogenes; other pathogenic germs may be present.

Chronic bacteremia is caused by the invasion by streptococcus pyogenes alone or in conjunction with other germs, but they disseminate from an infected thrombus; they are not diffused in one large quantity, neither are they possessed of the same virulence. The production of abscesses in this condition, upon which the pathological difference between acute and chronic bacteremia depends, is due to organisms finding a resting-place outside of the blood-circulation, and there giving rise to abscess. All these diseases being due to "septic infection" in a *broad sense*, he would limit the application of this term to those cases in which the infection is local, bearing in mind that a local infection may have severe constitutional symptoms.

Sapremia is caused by the absorption of decomposition products, toxins, saprophytes; as for example, placenta, decidua, blood or lochia in the genital tract. This disease may develop into one of those previously spoken of. In many instances it is impossible to classify a case until the patient has been under observation for some time. Septic infection, although it covers all these varieties in a clinical sense, and is an appropriate term at the bedside, should not be used in reporting cases, without such details as will convey an idea of the patient's condition. The prognosis of acute bacteremia is unfavorable. He had seen no recoveries from it.

Prophylaxis is most important with puerperal women. Fever having developed, keep the patient at perfect rest. Next, attention should be directed to the primary entrance of the fever-producing agents. If the seat of infection is about the vulva or in the vagina, or both, the treatment

should be cleanliness. If no local injury is found, then the interior of the uterus may be examined. It should not be done if the general condition, especially the pulse, is good, and the temperature is not above 101° or 102° F., because retained tissue is usually expelled spontaneously in a short time. Therefore, unless it is known that foreign elements are within the uterus, it should not be explored, unless it seems to be necessary. Abstain from unnecessary meddling. For the removal of foreign elements a curette should be discarded, except by those accustomed to its use in such cases, and then only if the retained tissue has been located by the finger and cannot be removed by it. A curette should never be used in septic endometritis, because it intensifies infection by causing fresh wounds. An intra-uterine douche is always advisable before and after manipulations within the uterus. It should not be repeated unless the secretions are purulent, and there is a continued fever. Under such circumstances he had seen benefit result from an intra-uterine douche of peroxide of hydrogen, 25 to 75 per cent., or other antiseptic. He had found that if no intense systemic infection were present and if the uterus remained enlarged and relaxed, after being cleansed, a treatment of benefit is gentle massage of the organ at intervals varying from one to three hours. So far as he knew, this had not been advocated by any one previously. The massage is the same as when used for inciting uterine contractions for expulsion of the placenta—a circular motion. Antipyretics, especially the coal-tar preparations, are harmful; they lower the temperature only temporarily, and act with deleterious effect on the heart and nervous system. He had seen no benefit from gauze placed in the uterus for the sole purpose of drainage. If the infection is localized in the pelvic cellular tissue, or the peritoneum, the application of an ice-bag or coil should be resorted to. He had also found benefit from unguentum Credé. If there is positive evidence of pus, the abscess should be incised; the incision should be large to permit thorough cleaning and drainage. Frequently puerperal pyosalpinx is of gonorrheal origin. The safest treatment is vaginal incision. The patient should be handled carefully, so that adhesions in the pelvis are not disturbed. If patients with septic infection are not benefited by the treatment suggested, or if there is reason to believe that additional resort to minor interventions would be useless, and if we are sure that the continuance of infection comes from the uterus alone, hysterectomy should be considered. Serum treatment, as now in use, is of no benefit. In some instances of diffuse septic peritonitis, where there is no bulging from an exudate in the pelvis, an extensive abdominal section, separation of adhesions, with thorough flushing of the abdominal cavity with saline solution, and drainage, may be resorted to.

He has seen no benefit from saline infusions, and had no treatment to suggest for acute bacteremia. He does not believe that benefit is to be derived from incising the cul-de-sac of Douglas, and draining the pelvis with gauze for the purpose of aborting acute bacteremia, when there is no exudate in the pelvis. Chronic bacteremia should be treated according to indications in an individual case.

Early Diagnosis of Insanity.—Dr. Carlos F. MacDonald of New York said that this subject is important because usually the responsibility of recognizing insanity in the first instance devolves on the family physician. It is important also because insanity is a disease from which no one can claim exemption; and because it is more frequent, serious and far-reaching and involves a wider range of interests regarding the welfare and happiness of individuals, of families or of communities than any other malady known. There are about 22,000 insane in custody in this State today, involving an outlay of $20,000,000, for hospital plants, and of $5,000,000 annually for maintenance. There is no disease which creates a greater distress and helplessness on its invasion of the family circle, nor is there one more likely to be mismanaged in the initial stages. In their stress and anxiety the friends of the patient naturally turn to the family physician for advice and assistance. Hence the importance of informing oneself respecting its early symptoms. Its study presents nothing new or incomprehensible. Its phenomena on the mental side consist largely of modifications of the natural characteristics of the individual, whether in exaggeration, perversion or diminution. These modifications are merely the outward expression of disturbance of the intellectual areas of the brain. These symptoms may be summarized as a prolonged departure from the methods of thinking, feeling and acting which were usual to the individual when in mental health. Insanity is a comparative state, there being no common standard of sanity departure from which constitutes insanity. Every individual has his own standard, and in determining one's mental condition he must be compared with himself, *i. e.*, with his normal mental status, and not with any other man's. Therefore it is only when a man differs from himself, so to speak, that he may be regarded as insane. Two individuals may exhibit precisely similar symptoms and the one be sound and the other a lunatic. The invasion may occupy days, weeks or even months, although in some cases the onset is quite rapid and any marked change in the mental or moral tone of an individual should at once arouse suspicion. Prominent prodromata are disturbances of bodily functions, morbid emotional manifestations and alterations in the mental characteristics. Somatic functional disturbances express themselves in various ways, such as *pavor nocturnus*, insomnia, headache, tinnitus vertigo, vasomotor disturbances, anorexia, indigestion, constipation, etc. Any or all of these symptoms may occur in persons who never become insane; hence, while frequently observed in the prodromal stage of insanity, they are not pathognomonic. When found, however, they are always significant, especially in persons

predisposed to mental disease. Insanity is rarely due to a single predisposing or a single exciting cause. Usually a combination of causes will be found. Although the immediate cause is malnutrition of the brain, any disease or condition which impairs the bodily nutrition or alters unfavorably the quality or quantity of the blood-supply is capable of becoming a cause of insanity. The function of the mental faculties depends on the health of the physical system. There can be no unsoundness of mind, in a medical sense, without unsoundness (disease) of body. Many cases of acute insanity could be avoided if the prodromata were recognized and relieved. Prevention is better than cure, and to recognize mental disorder in its incipiency will frequently enable remedial measures to be adopted most opportunely for arresting its progress. Doubtless many minds of the highest order have been damaged beyond repair simply for want of appropriate treatment during the early manifestations of their disturbance.

Dr. Drayton of New York said that the timely elucidation of this important matter was serviceable to the Society, because the early and careful diagnosis of insanity was annually more important and, though not easy, should be more commonly within the ability of the average practitioner.

Contribution to Pelvic Infection in Women.—Dr. C. A. L. Reed of Cincinnati, President of the American Medical Association, guest of the Society, drew the following conclusions: The barriers to infection are (1) the epithelium in the genito-urinary tract; (2) the anatomy of the cervix uteri and the characters of its secretion; (3) the vagina and specifically its acid secretion; (4) the gonococcus is especially deadly to the epithelium; (5) the bacteria non-pathogenic or mildly so in one section may be virulent elsewhere; (6) in ways not yet known the phagocytes protect; (7) septicemia in serious or deadly form results from infection when the genus or their toxins circulate in the blood.

Dr. Boldt of New York said that the resistance and constitution of the patient are also barriers to infection in unknown ways. Dr. Dudley of New York said the gonococcus always leaves its mark in scars about the small gland-ducts of the vulva, vagina and urethra, and when he sees such scars he always is sure of local infection in the past.

The Society here passed a resolution to support the Pathological Institute of the New York State Hospitals for Insanity and Related Diseases in its fight for existence before the present Legislature.

The Anniversary Address.—Dr. A. M. Phelps of New York presented the Radical Cure of Inguinal Hernia as the subject of the ninety-fifth presidential address. He said that there is probably no other surgical affection which has commanded more attention from the profession, or wrought more disaster to the human family, than inguinal hernia. When it is remembered that for hundreds of years no rational operation had been attempted for the relief of strangulated hernia; and, knowing full well the frequency of that dangerous malady and the frightful mortality, amounting to more than seventy-five per cent. when not treated surgically—we can fully appreciate the importance of preventing the occurrence of strangulated hernia by a rational operation before strangulation takes place.

For more than two thousand years, surgeons of every decade and century have proposed and performed operations based upon some theory or other to prevent the descent of the intestine into the inguinal canal, always meeting with a signal failure; and it may seem strange, but still it is true, that not until twelve years ago was any operation performed that would receive one moment's consideration to-day from any surgeon who is familiar with the subject.

Up to 1846 cauterization, ligation of the sac and spermatic cord subcutaneously, suturing of the canal and the sac either subcutaneously or through an open wound, excision of the whole or part of the sac, castration together with the actual cautery applied to produce sloughing of the parts, are vividly described.

Another favorite method was the introduction of foreign bodies into the hernial sac, the object being to produce a mass of new inflammatory material, which would prevent the descent of the intestine. The injection of irritating fluids within or outside of the hernial sac became a favorite method. But of all the methods of mediæval times, the one that has survived is subcutaneous suture, which has been practised almost up to the present time in Great Britain and Italy. The Bassini operation appeared in 1888 and that of Halsted in 1889.

Technic.—The operation first performed by Dr. Phelps in the winter of 1892-93, with the modifications he has made, is as follows: An incision is made from a point one inch to the inner side of the anterior superior spinous process to the spine of the pubis, and carried down to the sac and to the peritoneum, splitting the entire length of the inguinal canal to about an inch and a half beyond the internal ring. The cord is separated from the sac and lifted from the canal, and the sac cut away. The sac is not cut too short, neither is it left redundant. This sac is stitched up with a continued suture of fine silver wire. The transversalis muscle and the internal oblique are separated from the external oblique and stitched together with a continued suture of wire, beginning at the spine of the pubis, closing the canal firmly. The muscles are slightly notched external to the internal abdominal ring to allow the cord to pass through without pressure. The third row of sutures closes the aponeurosis of the external oblique, together with the pillars of the ring the entire length of the wound, the aponeurosis being notched at the point where the cord makes its exit. Over all, the skin and cellular layer are stitched with catgut. Great care is exercised in stopping all hemorrhage before the wound is closed. After the sac has been stitched up (and underneath all of the muscles) over the entire length of the inguinal canal is placed a fine filigree

of silver wire. Over this each muscular layer is stitched. The muscles must be perfectly separated one from the other, in order to secure the best coaptation. The skin is stitched with catgut. The cord lies directly under the skin, as in Halsted's operation. In a very fat subject, a small drainage tube is inserted down to the wire, which is removed at the end of thirty-six hours. Three rows of continued wire sutures are used in all herniæ, *viz.*, neck of sack, deep layer of muscles and external oblique. In cases of small hernia, instead of putting in the wire filigree or mattress, a few loops of wire are placed directly across the canal over the transversalis fascia and peritoneum, and the muscles stitched over it; or the layers of muscles are closed with a continued suture of fine silver wire, both ends of which are anchored, and all of the ends cut short so as not to irritate the tissues. For large openings a wire mattress or filigree is absolutely necessary. In all cases ot relapsed herniæ, when there is atrophy of muscles due to pressure, it is imperatively demanded or a relapse will likely occur. In smaller herniæ a few wire loops are sufficient; a mattress suture, the two ends of which are fastened firmly in the muscles, is all that is required, the mattress being omitted. Two rows of these continued sutures are necessary, one for the deep and the other for the superficial layer of muscles. In making these filigrees from ten to a hundred and fifty feet of wire are required, depending on the size of the opening to be closed. It has been urged that this wire will cause suppuration. Suppuration is not produced by any foreign body. It is always produced by bacteria. He has never yet been obliged to remove the wire, with the exception of once or twice, and these were soon after operation on account of certain complications arising not due to the wire. Out of 238 cases thus treated he has had no deaths and but eighteen suppurations. None of these suppurations destroyed the result of the operation and all were due to causes proved not to depend on the wire.

WEDNESDAY—AFTERNOON SESSION.

A Hair-Cast of the Stomach; its Successful Removal by Laparotomy.—Dr. N. Jacobson of Syracuse read this paper. He showed the cast which weighed fifteen ounces. Dr. R. T. Morris of New York City said he had once found hair in the appendix.

Surgery of the Spleen.—Dr. J. C. Warren of Boston said that the diseases for which this viscus is amenable to operation are as follows: Malarial spleen, anemia, leucocythemia, chronic enlargement, actual hypertrophy, atrophy of the liver with secondary splenic enlargement, amyloid degeneration, ecchinococcus cyst, angioma, fibroma, abscess, rupture, tuberculosis, sarcoma, floating spleen, twist of the pedicle. The revised death-rate for such cases is 12.2 per cent.

Dr. Van der Veer of Albany said that he operated on what proved to be an angioma of the spleen. The patient lived in fair health with a chronic sinus for fourteen months and died eighteen months after operation.

Inguinal Hernia.—Dr. M. Ricketts of Cincinnati gave a complete and comprehensive description of the anatomy involved in inguinal hernia. He claims that, etymologically and anatomically, the use of the word canal is wrong, ring being the proper word. A circular letter was sent to over one hundred prominent surgeons. Many interesting facts can be deduced from the replies received. Thirty-four surgeons gave an approximate percentage of recurrence in their practice; this percentage varies from one to fifteen per cent.; this last percentage agrees with that of Professor Girard of Berne for results in Europe. The average is 5.58 per cent. based on 6027 operations by 34 surgeons. From statements contained in letters received in answer to the circular, it is fair to infer that only one-half of the total number of operations were reported. This would bring the percentage up to about 15 per cent. These letters show that infection and recurrence are less frequent when wire or silkwormgut is used in the Phelps, Halsted, or Abbe method of operation. The writer bears unequivocal testimony to the success of the Phelps operation; he employs it and considers it ideal. It is the only one that insures successful and permanent cure. He agrees with Abbe that silver wire or silkwormgut is to be employed in preference to absorbable sutures. He does not believe that suppuration has anything to do with causing recurrence; the real cause or rather causes of relapse are deficient origin (attachment) of the internal oblique muscle, pressure of a truss (where one has been worn), length of time that hernia has existed, lack of nerve and blood-supply, and intra-abdominal pressure rupturing the cicatrix. The last factor can be disregarded if the Phelps method is employed, because if the wire mattress is once placed properly there is no possibility of relapse by a rupture from the intra-abdominal pressure. He doubts the doctrine that varicocele is a cause of inguinal hernia, and holds that all herniotomies should be regarded as modified laparotomies. The prevalence of hernia suggests the questions. Is there anything in the habits engendered by our rapidly-advancing civilization that is conducive to the production of hernia? Is man progressing toward morphological perfection or degeneration? He refers to the historically interesting edict of Constantine, forbidding operations which involve loss of cord and testicle, for fear that the population of the country would suffer.

Grastro-jejunostomy in Gastrectasis.—Dr. A. H. Cordier of Kansas City, Mo., pleaded for this operation in preference to the radical measures when such can promise very little or no relief and when they involve undue hazard.

Toxin of the Colon Bacillus.—Dr. V. C. Vaughn of Ann Arbor, Mich., said that the colon bacillus appears to make a poison insoluble except in the body fluids. This explains why in some body fluids it is innocuous and in others very fatal.

The So-Called Traumatic Neuroses.—Dr. H. N. Moyer of Chicago, Ill., denies the existence of this condition and says the symptom-complex called by this name is either hysteria, neurasthenia, hypochondria or melancholia.

The Election of Officers.—The Nominating Committee reported the following named gentlemen as officers for the ensuing year: Dr. H. L. Elsner of Syracuse, President; Dr. L. N. Lanehart of Hempstead, Vice-President; Dr. F. C. Curtis of Albany, Secretary; Dr. O. D. Ball of Albany, Treasurer.

These gentlemen were duly elected and the meeting adjourned on Thursday morning.

BOOK REVIEWS.

REPORT OF THE SURGEON-GENERAL OF THE UNITED STATES NAVY, FOR THE YEAR 1899; Washington, D. C. 1900.

CANDOR makes necessary the statement that some of the numerous bureau reports that go out of the government printing office in Washington are models of dryness, replete from cover to cover with uninteresting details, made up mostly after the manner of the reports of some of the great State Hospitals for the Insane in the State of New York. But this statement is untrue, in so far as it applies to the report of Dr. W. K. Van Reypen, Surgeon-General of the United States Navy.

Dr. Van Reypen's report is a model of completeness and compactness, and contains a vast amount of general and special information, information that is was possible to procure and present only on account of the recent war with Spain. Indeed, the very first page of the report contains a statement that almost takes one's breath away, judging from the way that public expenditures are made these days. Dr. Van Reypen says "$100,000 was appropriated by Congress for the Bureau of Medicine and Surgery for war purposes, and $37,000 of this has been returned to the Treasury." Think of it! Marvelous, indeed, that a great bureau of the government should permit, nay, cause this amount to lapse back into the Treasury as an unexpended balance. There is no need in dwelling on the why and wherefore of this balance; it is there, and that suffices.

Dr. Van Reypen calls attention, as many of his predecessors in office have done before, to the great demand for more medical officers in the Navy. There has been an urgent need for an addition to this force for many years, and there has likewise been a demand for raising the grade of the junior officers in the medical corps. Not only are these junior officers underpaid and have a lower relative rank than men of virtually the same standing and grade of education in the Army; but they do not receive the same emolument from the government; which facts tend to make a medical position in the Navy less desirable than in the Army. The result is obvious; the Army selects its men from a long waiting list; the Navy is rather forced to accept, not inferior men; but to suffer great delay in procuring the number of men it actually requires.

In speaking of the work of the medical officers, Dr. Van Reypen has this to say on this point: "An examination of the professional work of the medical officers, ashore and afloat, exhibits care and accuracy in the preparation of all official papers and a commendable zeal in the performance of their duties." The Surgeon-General states that the daily average number of patients under his care during the year was 678.63; the total number of men on duty daily in the Navy being 23,986. There were 173 deaths reported during the year, of which number 118 were from disease and 55 from injuries. The low number from injuries speaks volumes for American seamanship and all allied forces, when we remember the great historic battles that were fought in Manila Bay and at Santiago.

The report is complete with histories of cases written by the officers of the Surgeon-General's corps. Some of the cases are extremely interesting and will find a lasting place in medical literature. And when we remember how these medical men did their work, how they operated under such great disadvantages as they often did, we marvel at the success they so frequently attained. It seems that the day is not far distant when the location and care of the "sick bay" on most ships will receive more consideration at the hands of those who design and construct these ships than they do at the present time. Think of a man lying in bed with a fractured leg and having that leg refractured just as it has commenced to knit together, simply from the concussion of the firing of a great gun within a few feet of that man's bed! This is not even humane, and such crude facilities for caring for the sick should be abolished just as rapidly and as effectively as possible.

If the Surgeon-General will permit the suggestion, we believe it would be an excellent investment for him to send his reports broadcast throughout the country, or as far as he may be able, in order that physicians of influence may become better acquainted with the actual medical and surgical work done in the navy. These physicians might then take an interest in it and might be able to secure the interests of the representative in Congress from their district. Eventually good will come of this, by virtue of the Surgeon-General of the Navy and his officers getting more of what their service requires. On the whole, we have nothing but praise for Dr. Van Reypen's report. It is a document well worth reading, worth filing and preserving, and is a valuable addition to any library.

MODERN MEDICINE. By JULIUS L. SALINGER, M.D., and FREDERICK J. KALTEYER, M.D. W. B. Saunders & Company, Philadelphia and London.

WE have carefully gone over this volume of 801 pages in the hopes of finding something modern in it, but we regret to say that we find it distinctly

commonplace. The opening chapter on Symptomatology consists of a short account of the methods of examination. This is suggestive more of a quiz-compend than of a serious work on medicine, while Chapter II. on Clinical Bacteriology contains very little clinical knowledge whatever and should be designated descriptive bacteriology. The size and manner of growth of the various organisms is told, but what relationship, for instance, bacillus pyocyaneus has to clinical medicine is not given. The rest of the book is made up of an abridged account of the various diseases. It is sufficiently accurate to aid a student in passing examinations, but as a serious guide to the large subject of medicine, it should not be considered. The mechanical part of the book is all that could be desired.

PSYCHOPATHIA SEXUALIS. With Especial Reference to Antipathic Sexual Instinct. A Medico-Forensic Study. By Dr. R. VON KRAFFT-EBING. Translation from Tenth German Edition. W. T. Keener & Co., Chicago.

THE medical public is sufficiently cognizant of the value of this book and the English speaking public is to be congratulated on having an adequate translation. The previous one was more of a travesty than a serious performance. The present volume has preserved the truer point of view of the author.

The conditions here described are found in human nature, and as such are entitled to serious consideration and study. Such books are not written for babes and sucklings, and it is to be regretted that the historical form was adopted by the gifted author of the original, but there probably was no other way of presenting the subject.

The publishers' part in this volume is excellent.

ENCYCLOPEDIA MEDICA. Under general editorship of CHALMERS WATSON, M.B., M.R.C.P.E. Vol. II. Brachial Plexus to Digestion; Vol. III. Diphtheria to Food; Vol. IV. Foot to Hernia. Longmans, Green, & Co., New York.

WE have had occasion in reviewing the first volume of this large enterprise to speak of its excellent character. In the succeeding volumes, three of which are before us, the impression is made more distinct and, furthermore, the practical character of the work is made more and more evident with each new volume. As stated in our earlier review the Encyclopedia Britannica seems to have been the model on which the present work is constructed. This has its advantages, as well as its defects, thus the more typically medical topics are discussed while information bearing on collateral branches is absent. The chief weight is laid on medicine and surgery. Anatomy and physiology are well represented, hygiene and general topics as well, but materia medica, as such, is conspicuous by its absence. Thus, the drugs digitalis, ergot, belladonna, etc., are not even mentioned.

In Volume II. the article on the brain is very well done. There is not too much of it and yet what there is, is distinctly modern and authentic. The articles on diet, climate, digestion and metabolism are conservative and practical. In Volume III. the discussions on diphtheria, diseases of the ear, eczema, the enzymes and the development of the fetus are especially interesting and complete.

Volume IV. contains some excellent descriptions of diseases of the gall-bladder and the gastro-intestinal diseases of infancy. The chapter on gout is especially noteworthy, as is also the discussion of the physiology of the heart and its diseases. The cardiac neuroses are treated at some length.

These volumes are illustrated more fully than was Volume I. and already it may be said that the series is destined to become a very valuable one for handy reference. The valuable features are the concise and authentic descriptions and the full discussions of treatment.

BOOKS RECEIVED.

The MEDICAL NEWS *acknowledges the receipt of the following new publications. Reviews of those possessing special interest for the readers of the* MEDICAL NEWS *will shortly appear.*

FOOD AND THE PRINCIPLES OF DIETETICS. By Dr. Robert Hutchinson. 8vo, 548 pages. Illustrated. William Wood & Company, New York.

SANITY OF MIND. A Study of its Conditions, and of the means to its Development and Preservation. By Dr. David F. Lincoln. 12mo, 177 pages. G. P. Putnam's Sons, New York and London.

ENTEROCLYSIS, HYPODERMOCLYSIS AND INFUSION. A Manual for Physicians and Students. By Dr. R. C. Kemp. 8vo, 349 pages. Illustrated. Jas. T. Dougherty, New York.

STUDIES FROM THE DEPARTMENT OF PATHOLOGY OF THE COLLEGE OF PHYSICIANS AND SURGEONS, COLUMBIA UNIVERSITY, New York. Vol. VII., for the year 1899-1900.

CANCER OF THE STOMACH. A Clinical Study. By Dr. William Osler and Thomas McCrae. 8vo, 158 pages. Illustrated. P. Blakiston's Son & Co., Philadelphia.

DISEASES OF THE NERVOUS SYSTEM. A Text-Book for Students and Practitioners of Medicine. By Dr. H. Oppenheimer. Translation from Second German Edition by Dr. Edward E. Mayer. 8vo, 900 pages. Illustrated. J. B. Lippincott Company, Philadelphia and London.

A MANUAL OF MEDICINE. Edited by W. H. Allchin. Vol. II. General Diseases. Demi 8vo, 380 pages. Illustrated. The Macmillan Company, London and New York.

THE CARE OF THE CONSUMPTIVE. By Dr. Charles Fox Gardiner. 12mo, 182 pages. G. P. Putnam's Sons, New York and London.

A TEXT-BOOK OF PHARMACOLOGY AND THERAPEUTICS. Or the Action of Drugs in Health and Disease. By Dr. Arthur R. Cushny. Second Edition, Revised and Enlarged. 8vo, 732 pages. Illustrated. Lea Brothers & Co., Philadelphia and New York.

PANAMA AND THE SIERRAS. A Doctor's Wander Days. By Dr. G. Frank Lydston. 8vo, 283 pages. Illustrated. The Riverton Press, Chicago.

RUDIMENTS OF MODERN MEDICAL ELECTRICITY. By Dr. S. H. Monell. 12mo, 165 pages. Illustrated. E. R. Pelton, New York.